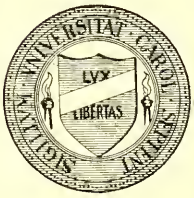
THE UNIVERSITY OF NORTH CAROLINA

THE ONE HUNDRED AND
EIGHTEENTH SESSION



THE CATALOGUE
1912-1913

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Calendar

1913

June 11–July 23	Summer Term for Teachers.
June 18–August 28	Summer Law School.
September 3–6	*Wednesday to Saturday.* Examinations for Removal of Conditions.
September 8–10	*Monday to Wednesday.* Entrance Examinations. Registration.
September 11	*Thursday.* Lectures begin (Fall Term).
October 12	*Sunday.* University Day.
November 27	Thanksgiving Day.
December 19	*Friday.* Christmas Recess begins (1:30 P. M.).

1914

January 2–3	*Friday and Saturday.* Registration.
January 5	*Monday.* Lectures begin.
January 19–29	Mid-Year Examinations.
January 30	*Friday.* Lectures begin (Spring Term).
February 22	*Sunday.* Washington's Birthday.
May 2	*Saturday.* Selection of Commencement Orators.
May 19–29	Final Examinations.
May 31	*Sunday.* Baccalaureate Sermon. Sermon before the Y. M. C. A.
June 1	*Monday.* Senior Class Day. Inter-Society Banquet and Reunions.
June 2	*Tuesday.* Alumni Day. Meeting of the Board of Trustees. Inter-Society Debate.
June 3	*Wednesday.* Commencement Day. Summer Vacation begins.
September 2–5	*Wednesday to Saturday.* Examinations for Removal of Conditions.

PART ONE

FOUNDATION AND GOVERNMENT
TRUSTEES
FACULTY
COMMITTEES

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The University

Foundation and Government. The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1789, the cornerstone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of incorporation are as follows:

"AN ACT TO ESTABLISH A UNIVERSITY IN THIS STATE."

"Whereas in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same,* That, *Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Frederick Hargett, Robert Snead, Archibald Maclaine,* Honourable *Samuel Ashe, Robert Dixon, Benjamin Smith,* Honourable *Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove,* Reverend *Samuel M'Corkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham,* Honourable *John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood,* senior, *John Macon, William Richardson Davie, Joseph Dixon, William Lenoir, Joseph M'Dowell, James Holland and William Porter,* Esquires, shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of *The Trustees of the University of North Caroilna** and by that name

*The corporate name has been changed to The University of North Carolina.

shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Majority of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University."†

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarian, or political control. The Governor of the State is *ex-officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

"SEC. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchises, and endowments thereof, in anywise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

"SEC. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition: also all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estates of deceased persons, shall be appropriated to the use of the University."

LOCATION. The seat of the University is Chapel Hill, Orange county, twenty-eight miles northwest of Raleigh. Two daily passenger trains run between Chapel Hill and University Junction, a station on the North Carolina Railroad. The site for the institution was selected because of its healthfulness, its freedom from malaria, its supply of pure water, its beautiful scenery, and its central location in the State.

EQUIPMENT. The University campus contains forty-eight acres of land, affording ample grounds for building and for all

† Laws of the State of North Carolina, published by James Iredell, Edenton, MDCCXCI.

sorts of athletic sports. The University owns, contiguous to the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has twenty-five buildings.

The South Building contains one lecture room and thirty living rooms.

The Old East Building contains two lecture rooms and twenty-eight living rooms.

The Old West Building contains two lecture rooms, the Historical Museum, and twenty-seven living rooms.

Person Hall contains the Pharmaceutical Laboratories and three lecture rooms.

Gerrard Hall is used for morning prayers, for mass meetings and other student assemblies, and for public lectures.

Smith Hall contains the Law library and lecture rooms.

The New West Building contains the Dialectic Literary Society's Hall, one lecture room and eleven living rooms.

The New East Building contains the Philanthropic Literary Society's Hall, the Geological Laboratory and Museum, the offices of the North Carolina Geological Survey, and fourteen living rooms.

Memorial Hall commemorates the illustrious dead of the University. It is used at Commencement for public exercises.

The Alumni Hall contains the offices of administration, the Physical Laboratories, and nine lecture rooms.

The Carr Building, the gift of Gen. J. S. Carr, contains forty-two living rooms.

The Smith Building contains forty living rooms.

The William Preston Bynum, Jr., Gymnasium is the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893. It is furnished with modern apparatus, swimming pool, baths, lockers, and running track; and contains a trophy room and the office of the Instructor in Physical Training.

The Young Men's Christian Association Building is a valuable adjunct to the work of the Association.

Chemistry Hall contains Chemical Laboratories, lecture rooms, offices for the instructors, and store rooms.

The new *Library* building, given by Andrew Carnegie, Esq., has now been in use for five years.

Davie Hall, the Biological Laboratory, contains laboratories and lecture rooms for zoology and botany.

Caldwell Hall, just completed, is used exclusively by the School of Medicine, and contains laboratories, lecture rooms, dissecting rooms, and offices for the instructors.

The New Educational Building, the gift of the Peabody Board, contains lecture rooms, offices, library, and auditorium and is splendidly equipped in every detail.

The Infirmary, a spacious and completely equipped building, is open to all students of the University.

The New Dormitories, Battle, Vance, and *Pettigrew* Sections, contain seventy-two rooms in suite for the use of students.

Commons contains a dining hall where students obtain board at ten dollars a month. The whole enterprise was made possible through the beneficence of Mrs. Frederick Baker, of New York.

University Inn is used for dormitory purposes, and contains a dining hall where students obtain board at fifteen dollars a month.

The Power House contains the electric lighting plant, the central heating plant, the pumps of the system of water supply, and the rooms of the University Press.

The general equipment has been improved by a thorough system of sewers and baths, a supply of pure water in all the buildings, and hot water heat in all the offices, recitation rooms, reading rooms and living rooms.

College Year. The College year begins on the second Thursday in September. It is divided into two terms of four and a half months each. Commencement is held on Wednesday before the first Thursday in June. The summer vacation begins on Commencement day and ends on the Wednesday before the second Thursday in September. There is a Christmas recess of about ten days. The twelfth of October (University Day), Thanksgiving Day, and the twenty-second of February (Washington's Birthday) are holidays.

DEGREES. The degrees of Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Bachelor of Laws, and Graduate of Pharmacy are conferred by vote of the Trustees, after the recommendation of the Faculty, upon candidates who have satisfied the requirements of residence and study at the University. Students who are not candidates for a degree may elect any studies they wish, subject to the Committee on Courses, devoting their time entirely to one or two subjects, or selecting groups of such subjects as suit their tastes and purposes.

GRADUATE STUDENTS. Free instruction is given in the College to graduates of colleges and universities. Women are admitted to the higher courses of the University.

PHYSICAL TRAINING. Hearty encouragement is given to athletic sports and to all kinds of physical culture. The athletic field furnishes ample facilities for football and baseball. The Lake Track is admirably adapted for running, bicycling, and general track athletics. Fifteen tennis courts are located on the campus. Systematic exercise in the Bynum Gymnasium under a skilled instructor is required of all students in the College, except Seniors.

GENERAL CULTURE. Chapel Exercises are conducted in Gerrard Hall, with the reading of the scriptures and singing, every weekday morning except Saturday, at 9:25 o'clock. At the same hour timely talks are given by different members of the Faculty. Attendance at this service is required of all undergraduates, unless especially excused. Bible classes for young men are taught in each of the four churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered annually by the University Preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are largely attended by the students.

DISCIPLINE. The University endeavors to make young men manly and self-reliant, and to develop character by educating

the conscience. The Faculty may, at their discretion, admonish, suspend, or dismiss students for neglect of duty or for misconduct.

Medical Attention. In order to secure responsible and efficient medical advice and to provide proper attention for the student during sickness the University employs a practicing physician and maintains a well appointed infirmary. The Infirmary is equipped with all necessary conveniences and comforts, is under the immediate supervision of the University Physician, and is provided with an experienced nurse. At the discretion of the University Physician a student may be admitted to its wards and for such services as may be rendered by the staff no charges are made, but should any additional service (consultations, special nurses, operations requiring the attendance of a trained surgeon), recommended by the attending physician and approved by the parent or guardian, be necessary, the student will be required to pay for such services.

TRUSTEES

LOCKE CRAIG, GOVERNOR, President *ex-officio* of the Board of Trustees.

JAMES YADKIN JOYNER, SUPERINTENDENT OF PUBLIC INSTRUCTION, member *ex-officio* of the Board of Trustees.

RICHARD HENRY LEWIS, Secretary.

MEMBERS OF THE BOARD

1913*

JOHN LANGHORNE BARHAM.....Wayne.
STEPHEN CAMBRELENG BRAGAW.....Beaufort.
WILLIAM EDMOND BREESE.....Transylvania.
WALTER CLARK, JR.....Wake.
FREDERICK JACKSON COXE.....Anson.
CLAUDIUS DOCKERY.....Wake.
RUFUS ALEXANDER DOUGHTON.....Alleghany.
ROBERT CHARLES ELLIS.....Cleveland
WILLIAM NASH EVERETT.....Richmond.
NELSON MCPHERSON FEREBEE.....Granville.
†ROBERT TERELIUS GRAY.....Wake.
FRANCIS W. HANCOCK.....Granville.
JOHN SPRUNT HILL.....Durham.
JOHN ALLEN HOLT.....Guilford.
WHITEHEAD KLUTTZ.....Rowan.
LARRY I. MOORE.....Pitt.
JOHN MOTLEY MOREHEAD.....Rockingham.
HAYWOOD PARKER.....Buncombe.
ALFRED MOORE SCALES.....Guilford.

1915

†CHARLES BRANTLEY AYCOCK.....Wake.
KEMP PLUMMER BATTLE.....Orange.
BENNEHAN CAMERON.....Durham.
ADOLPHUS HILL ELLER.....Forsyth.
JOHN WILLIAM FRIES.....Forsyth.
WILLIAM ANDERSON GUTHRIE.....Durham.

* The legal term of office expires November 30 of the year indicated.
† Dead.

Edward Joseph Hale.....Cumberland.
Henry Augustus Gilliam.....Edgecombe.
†Thomas Stephen Kenan.....Wake.
John Lamb.....Martin.
Richard Henry Lewis.....Wake.
Angus Wilton McLean.....Robeson.
Robert L. Madison.....Jackson.
Addison Goodloe Mangum.....Gaston.
James Smith Manning.....Durham.
John Archibald Parker.....Mecklenburg.
Jeter Connelly Pritchard.....Buncombe.
Thomas Davis Warren.....Craven.
Henry M. Weil.....Wayne.
John Kenyon Wilson.....Pasquotank.

1917

Alexander Boyd Andrews.....Wake.
David Collin Barnes.....Hertford.
John Alston Barringer.....Guilford.
†Richard Henry Battle.....Wake.
Julian Shakespeare Carr.....Durham.
Josephus Daniels.....Wake.
Augustus Washington Graham.....Granville.
John Bryan Grimes.....Pitt.
John George Hannah, Jr.....Chatham.
Luther Thompson Hartsell.....Cabarrus.
Alfred Williams Haywood.....Alamance.
John Wetmore Hinsdale, Jr.....Wake.
Franklin P. Hobgood.....Granville.
William Stamps Howard.....Edgecombe.
Henry Armand London.....Chatham.
Paul Jones Long.....Northampton.
George McNeill Rose.....Cumberland.
Albert Marchant Simmons.....Currituck.
James Sprunt.....New Hanover.
George Stephens.....Mecklenburg.

1919

J. Oscar Atkinson.....Alamance.
Victor Silas Bryant.....Durham.
†William Hyslop Sumner Burgwyn.....Halifax.
William Preston Bynum, Jr.,.....Guilford.
James Ozborn Carr.....New Hanover.

† Dead.

John Henry Dillard.....Cherokee.
John Washington Graham.....Orange.
Marmaduke Jones Hawkins.....Warren.
Samuel Spencer Mann.....Hyde.
Walter Murphy.....Rowan.
William Blount Rodman.....Mecklenburg.
Charles Lee Smith.....Wake.
David Stern.....Guilford.
Zeb Vance Walzer.....Davidson.
Charles Whedbee.....Perquimans.
William Thornton Whitsett.....Guilford.
Francis Donnell Winston.....Bertie.
Charles Williams Worth.....New Hanover.
Fred A. Woodward.....Wilson.
Emmett Roberson Wooten.....Lenoir.

COMMITTEES OF THE TRUSTEES

EXECUTIVE COMMITTEE

Governor Locke Craig, Chairman.

Alexander B. Andrews,
†Charles B. Aycock,
†Richard H. Battle,
Victor S. Bryant,
Julian S. Carr,
Josephus Daniels,
Claudius Dockery,
John W. Graham,
†Robert T. Gray,
J. Bryan Grimes,
Edward J. Hale,
James Y. Joyner,
†Thomas S. Kenan,
Richard H. Lewis,
James S. Manning,
Charles Lee Smith,
Charles Whedbee.

VISITING COMMITTEE.

Julian S. Carr, J. George Hannah, Jr,.
John Lamb.

†Dead.

Faculty

OFFICERS OF ADMINISTRATION

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.
Edward Kidder Graham, A. M., Dean of the College of Liberal Arts.
Andrew Henry Patterson, A. M., Dean of the School of Applied Science.
Charles Lee Raper, Ph. D., Dean of the Graduate School.
Lucius Polk McGehee, A. B., Dean of the School of Law.
Isaac Hall Manning, M. D., Dean of the School of Medicine.
Edward Vernon Howell, A. B., Ph. G., Dean of the School of Pharmacy.

OFFICERS OF INSTRUCTION

Francis Preston Venable, Ph. D., D. Sc., LL. D., Professor of Chemistry.

Student, University of Virginia, 1874-1879; University of Bonn, 1879-1880; A. M., Ph. D., University of Goettingen, 1881; Student, University of Berlin, 1889; LL. D., University of Pennsylvania, 1901; D. Sc., Lafayette College, 1902; LL. D., University of South Carolina, 1905; LL. D., University of Alabama, 1906; Professor of Chemistry, University of North Carolina, 1880-1900; President, *ibid.*, 1900 —

Kemp Plummer Battle, A. M., LL. D., Professor Emeritus of History.

A. B., University of North Carolina, 1849; A. M., *ibid.*, 1852; Tutor in Mathematics, *ibid.*, 1850-1854; LL. D., Davidson College, 1879; President University of North Carolina, 1876-1891; Professor of History, *ibid.*, 1891-1907; LL. D., *ibid.*, 1910; Professor Emeritus of History, *ibid.*, 1907 —

Walter Dallam Toy, M. A., Professor of the Germanic Languages and Literatures.

M. A., University of Virginia, 1882; Student, University of Leipzig, 1882-1883, University of Berlin, 1883-1885, Collège de France, 1885; Professor of Germanic Languages and Litera-

tures, University of North Carolina, 1885—; Student, University of Berlin, 1910-1911.

WILLIAM CAIN, A. M., Professor of Mathematics.

A. M., North Carolina Military Polytechnic Institute, 1866; Professor of Mathematics and Engineering, Carolina Military Institute, 1874-1879; Professor of Mathematics and Engineering, South Carolina Military Academy, 1882-1889; Professor of Mathematics, University of North Carolina, 1889—

HENRY HORACE WILLIAMS, A. M., B. D., Professor of Philosophy.

A. B., A. M., University of North Carolina, 1883; Professor of Philosophy, Trinity College (N. C.), 1885; B. D., Yale University, 1888; Fellow, Harvard University 1889; Professor of Philosophy, University of North Carolina, 1890—

HENRY VANPETERS WILSON, Ph. D., Professor of Zoology.

A. B., Johns Hopkins University, 1883; Fellow, *ibid.*, 1887-1889; Ph. D., *ibid.*, 1888; Professor of Biology, University of North Carolina, 1891-1904; Student, University of Berlin, 1902-1903; Professor of Zoology, University of North Carolina, 1904—

COLLIER COBB, A. M., Professor of Geology and Mineralogy.

A. B., Harvard University, 1889; A. M., *ibid.*, 1894; Assistant in Geology, *ibid.*, 1888-1890; Instructor in Geology, Massachusetts Institute of Technology, 1890-1892; Instructor in Geology, Harvard Summer School, 1891; Assistant Professor of Geology, University of North Carolina, 1892-1893; Professor of Geology and Mineralogy, *ibid.*, 1893—

CHARLES STAPLES MANGUM, A. B., M. D., Professor of Anatomy.

A. B., University of North Carolina, 1891; M. D., Jefferson Medical College, 1894; Assistant and Demonstrator, *ibid.*, 1894-1895; Graduate Student, University of Chicago, 1906; Professor of Anatomy, University of North Carolina, 1896—

EDWARD VERNON HOWELL, A. B., Ph. G., Professor of Pharmacy.

A. B., Wake Forest College, 1892; Ph. G., Philadelphia College of Pharmacy, 1894; Professor of Pharmacy and Dean of the School of Pharmacy, University of North Carolina, 1897—

MARCUS CICERO STEPHENS NOBLE, Professor of Pedagogy.

Student, Davidson College and University of North Carolina; Commandant, Bingham School, 1880-1883; Superintendent of Schools, Wilmington, N. C., 1883-1898; Professor of Pedagogy, University of North Carolina, 1898—

ISAAC HALL MANNING, M. D., Professor of Physiology.

Student, University of North Carolina, 1882-1886; Assistant in Chemistry, *ibid.*, 1886; M. D., Long Island College of Medicine, 1897; Graduate Student, University of Chicago, 1901, 1903, Harvard University, 1902, 1906; Professor of Physiology, University of North Carolina, 1901—; Dean of the School of Medicine, *ibid.*, 1905—

*GEORGE HOWE, Ph. D., Professor of the Latin Language and Literature.

A. B., Princeton University, 1897; A. M., Ph. D., University of Halle, 1903; Student, Oxford University, 1903; Professor of Latin Language and Literature, University of North Carolina, 1903—

JOSEPH HYDE PRATT, Ph. D., Professor of Economic Geology.

Ph. B., Yale University, 1893; Assistant in Chemistry, *ibid.*, 1894; Assistant in Mining, *ibid.*, 1895; Instructor in Mining, Harvard Summer School, 1895; Ph. D., Yale University, 1896; Instructor in Mineralogy, *ibid.*, 1896-1897; Lecturer on Economic Geology, University of North Carolina, 1899-1904; Professor of Economic Geology, *ibid.*, 1904—; State Mineralogist, 1897-1906; State Geologist, 1906—

CHARLES HOLMES HERTY, Ph. D., Smith Professor of General and Industrial Chemistry.

Ph. B., University of Georgia, 1886; Ph. D., Johns Hopkins University, 1890; Instructor in Chemistry, University of Georgia, 1891-1894; Adjunct Professor of Chemistry, *ibid.*, 1894-1902; Student, University of Zurich and University of Berlin, 1899-1900; Professor of Chemistry, University of North Carolina, 1905—; Dean of the School of Applied Science, *ibid.*, 1908-1911.

NATHAN WILSON WALKER, A. B., Professor of Secondary Education.

A. B., University of North Carolina, 1903; Superintendent of Schools at Ashboro, N. C., 1903-1905; Professor of Secondary

* Absent on leave 1912-1913.

Education, University of North Carolina, 1905—; State Inspector of Public High Schools, 1905—

WILLIAM DEBERNIERE MACNIDER, M. D., Professor of Pharmacology.

Assistant in Biology, University of North Carolina, 1899-1900; Assistant in Anatomy, *ibid.*, 1900-1901; M. D., *ibid.*, 1903; Student, University of Chicago, 1906, 1907, 1908; Professor of Pharmacology, University of North Carolina, 1905—

CHARLES LEE RAPER, Ph. D., Professor of Economics.

A. B., Trinity College, (N. C.), 1892; Instructor in Greek and Latin, *ibid.*, 1892-1893; Professor of Latin, Greensboro Female College, 1894-1898; Fellow in History, Columbia University, 1899-1900; Lecturer in History, *ibid.*, 1900-1901; Ph. D., *ibid.*, 1902; Associate Professor of Economics and History, University of North Carolina, 1901-1906; Professor of Economics, University of North Carolina, 1906—; Dean of Graduate School, *ibid.*, 1909—

EDWARD KIDDER GRAHAM, A. M., Professor of English.

Ph. B., University of North Carolina, 1898; Librarian, *ibid.*, 1899; Instructor in English, *ibid.*, 1899-1901; Associate Professor of English, *ibid.*, 1901-1904; A. M., Columbia University, 1902; Student, *ibid.*, 1904-1905; Professor of English, University of North Carolina, 1904—; Dean of College of Liberal Arts, *ibid.*, 1909—

WILLIAM CHAMBERS COKER, Ph. D., Professor of Botany.

B. S., University of South Carolina, 1894; Ph. D., Johns Hopkins University, 1901; Student, University of Bonn, 1901-1902; Associate Professor of Botany, University of North Carolina, 1902-1907; Professor of Botany, *ibid.*, 1907—

ARCHIBALD HENDERSON, Ph. D., Professor of Pure Mathematics.

A. B., University of North Carolina, 1898; A. M., *ibid.*, 1899; Instructor in Mathematics, *ibid.*, 1898-1902; Student, University of Chicago, 1901; Ph. D., University of North Carolina, 1902; Fellow and Tutor in Mathematics, University College and University of Chicago, 1902-1903; Associate Professor of Mathematics, University of North Carolina, 1902-1908; Professor of Pure Mathematics, *ibid.*, 1908—; Student, Cambridge University, University of Berlin, the Sorbonne, 1910-1911.

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., Alumni Professor of History.

M. A., University of the South, 1900; Ph. D., Columbia University 1906; Associate Professor of History, University of North Carolina, 1906-1908; Professor of History, *ibid.*, 1908—

ANDREW HENRY PATTERSON, A. M., Professor of Physics.

Ph. B., B. E., University of North Carolina, 1891; A. B., Harvard, University, 1892; A. M., *ibid.*, 1893; Instructor in Physics, University of Georgia, 1894-1897; Adjunct Professor of Physics and Electrical Engineering, *ibid.*, 1897-1898; Professor of Physics and Astronomy, *ibid.*, 1898-1908; Student, University of Berlin and Charlottenburg Technische Hochschule, 1905-1906; Student, Cambridge University, 1906; Professor of Physics, University of North Carolina, 1908—; Dean of the School of Applied Science, *ibid.*, 1911—

HENRY MCGILBERT WAGSTAFF, Ph. D., Professor of History.

Ph. B., University of North Carolina, 1899; Professor of Mathematics, Rutherford College, (N. C.), 1900-1902; Ph. D., Johns Hopkins University, 1906; Acting Professor of Economics and History, Alleghany College, 1906-1907; Associate Professor of History, University of North Carolina, 1907-1909; Professor of History, *ibid.*, 1909—

PATRICK HENRY WINSTON, Professor of Law.

Student, University of Texas, 1897-1898, University of North Carolina, 1899-1900; Graduate United States Military Academy, 1905; Student, University of North Carolina School of Law, 1905; Professor of Law, *ibid.*, 1909—; Student, University of Michigan, 1910.

WILLIAM MORTON DEY, Ph. D., Professor of the Romance Languages and Literatures.

B. A., M. A., University of Virginia, 1902; Student in Paris, 1903; A. M., Harvard University, 1904; Austin Teaching Fellow, *ibid.*, 1905-1906; Ph. D., *ibid.*, 1906; Student in Spain and Italy, 1906; Assistant Professor of Romance Languages, University of Missouri, 1906-1909; Professor of Romance Languages, University of North Carolina, 1909—

MARVIN HENDRIX STACY, A. M., Professor of Civil Engineering.

Ph. B., University of North Carolina, 1902; Instructor in Mathematics, *ibid.*, 1902-1906; A. M., *ibid.*, 1904; Student, Cornell Uni-

versity, 1905, 1906, 1911; Associate Professor of Civil Engineering, University of North Carolina, 1906-1910; Professor of Civil Engineering, *ibid.*, 1910—

JAMES FINCH ROYSTER, Ph. D., Professor of English.

A. B., Wake Forest College, 1900; Student, University of Chicago, 1900-1902, University of Berlin, 1902-1903; Acting Instructor, University of Colorado, 1904-1905; Fellow, University of Chicago, 1905-1906; Associate, *ibid.*, 1906-1907; Ph. D., *ibid.*, 1907; Associate Professor of English, University of North Carolina, 1907-1910; Professor of English, *ibid.*, 1910—

LUCIUS POLK MCGEHEE, A. B., Professor of Law.

A. B., University of North Carolina, 1887; Student, School of Law, *ibid.*, 1890-1891; Professor of Law, *ibid.*, 1904-1909; Dean of the School of Law, 1910—

CHARLES WESLEY BAIN, M. A. Professor of Greek.

Student, University of Virginia, 1883-1885; M. A., University of the South, 1895; Professor of Ancient Languages, University of South Carolina, 1898-1910; Professor of Greek, University of North Carolina, 1910—

ATWELL CAMPBELL MCINTOSH, A. M., Professor of Law.

A. B., Davidson College, 1881; A. M., *ibid.*, 1887; Professor of Law, Trinity College (N. C.), 1904-1910; Professor of Law, University of North Carolina, 1910—

HARRY WOODBURN CHASE, Ph. D., Professor of the Philosophy of Education.

A. B., Dartmouth College, 1904; Teacher in the Groveland High School (Mass.), 1904-1908; A. M., Dartmouth College, 1908; Director of the Clinic for Subnormal Children, Clark University, 1909-1910; Ph. D., *ibid.*, 1910; Professor of the Philosophy of Education, University of North Carolina, 1910—

WADE HAMPTON BROWN, B. S., M. D., Professor of Pathology.

B. S., University of Nashville, 1899; Student, University of Chicago, 1902, 1903; M. D., Johns Hopkins University, 1907; Instructor in Pathology and Bacteriology, University of Virginia, 1907-1908; Instructor in Pathology, University of Wisconsin, 1908-1910; Associate Professor of Pathology, *ibid.*, 1910-1911; Professor of Pathology, University of North Carolina, 1911—

ALVIN SAWYER WHEELER, Ph. D., Professor of Organic Chemistry.

A. B., Beloit College, 1890; Student, University of Chicago, 1895; Student, Cornell University, 1897; A. M., Harvard University, 1897; Assistant in Chemistry, *ibid.*, 1897-1900; Ph. D., *ibid.*, 1900; Associate Professor of Chemistry, Universty of North Carolina, 1900-1912; Professor of Organic Chemistry, *ibid.*, 1912—; Student, University of Berlin, University of Bonn, Swiss Federal Polytechnic, 1910-1911.

LOUIS ROUND WILSON, Ph. D., Professor of Library Administration.

A. B., University of North Carolina, 1899; Librarian, *ibid.*, 1901—; A. M., *ibid.*, 1902; Ph. D., *ibid.*, 1905; Associate Professor of Library Administration, 1907-1912; Professor of Library Administration, 1912—; Student, Columbia University, 1910.

TOM PEETE CROSS, Ph. D., Professor of English.

A. B., Hampden Sidney College, 1899; Instructor in English and Mathematics, *ibid*, 1899-1900; S. B., *ibid.*, 1900; A. M., Harvard University, 1906; Edward Austin Fellow, *ibid.*, 1908-1909; Ph. D., *ibid.*, 1909; Parker (Travelling) Fellow in Celtic and Comparative Literature, *ibid.*, 1909-1910; Student, School of Irish Learning, Dublin, 1909 (Summer Session); Instructor in English, Harvard University, 1909-1911; Professor of English, Sweet Briar College, 1911-1912; Professor of English, University of North Carolina, 1912—

WARREN STONE GORDIS, Ph. D., Acting Professor of Latin.

A. B., University of Rochester, 1889; A. M., *ibid.*, 1891; Ph. D., University of Chicago, 1905; Professor of Latin, John B. Stetson University, 1888-1898; Acting President, *ibid.*, 1895-1896; Instructor in Latin, Lewis Institute, 1899-1900, 1904-1905; Professor of Latin, Ottawa University, 1905-1907 Professor of Greek and Latin, *ibid.*, 1907-1912; Acting Professor of Latin, University of North Carolina, 1912-1913.

THOMAS JAMES WILSON, JR., Ph. D., Associate Professor of Latin.

A. B., University of North Carolina, 1894; A. M., *ibid.*, 1896; Ph. D., *ibid.*, 1898; Instructor in Latin and Greek, *ibid.*, 1899-1901; Instructor in Latin, *ibid.*, 1901-1902; Student, University of Chicago, 1903, 1906; Associate Professor of Latin, University of North Carolina, 1902—; Registrar, *ibid.*, 1908—

WILLIAM STANLY BERNARD, A. M., Associate Professor of Greek.

Student, Episcopal Theological Seminary (Va.) 1893-1895; A. B., University of North Carolina, 1900; Librarian, *ibid.*, 1900-1901; Instructor in Greek, *ibid.*, 1901-1906; A. M., *ibid.*, 1904; Associate Professor of Greek, *ibid.*, 1906—; Student, University of Chicago, 1906, Columbia University, 1909, 1910, 1911.

ROBERT BAKER LAWSON, M. D., Associate Professor of Anatomy.

Student, University of North Carolina, 1897-1900; M. D., University of Maryland, 1902; Instructor in Anatomy, University of North Carolina, 1905-1906; Demonstrator in Anatomy, *ibid.*, 1906-1908; Associate Professor of Anatomy, *ibid.*, 1908—

GEORGE MCFARLAND MCKIE, A. M., Associate Professor of Public Speaking.

Graduate, Emerson College of Oratory, 1898; A. B., A. M., University of North Carolina, 1907; Student, Harvard University, 1907-1908; Instructor in English, University of North Carolina, 1899-1908; Associate Professor of Public Speaking, *ibid.*, 1908—

JOHN MANNING BOOKER, Ph. D., Associate Professor of English.

A. B., Johns Hopkins University, 1901; Student, *ibid.*, 1901-1903, 1905-1909; Student, University of Munich, 1904-1905; Student, University of Heidelberg, 1903-1904. 1905, 1909, 1910, 1911; Ph.D., *ibid.*, 1912; Associate Professor of English, University of North Carolina, 1909—

OLIVER TOWLES, Ph. D., Associate Professor of the Romance Languages.

A. B., University of Virginia, 1906; Student, Johns Hopkins University, 1906-1909; Student in France, 1908; Ph. D., Johns Hopkins University, 1912; Associate Professor of Romance Languages, University of North Carolina, 1909—

THOMAS FELIX HICKERSON, A. M., S. B., Associate Professor of Civil Engineering.

Ph. B., University of North Carolina, 1904; Instructor in Mathematics, *ibid.*, 1905-1908; A. M., *ibid.*, 1907; S. B., Massachusetts Institute of Technology, 1909; Associate Professor of Civil Engineering, University of North Carolina, 1910—

PARKER HAYWARD DAGGETT, S. B., Associate Professor of Electrical Engineering.

Assistant in Electrical Engineering, Harvard University, 1908-1909; S. B., *ibid.*, 1910; Acting Professor of Electrical Engineering, University of North Carolina, 1910; Associate Professor of Electrical Engineering, *ibid.*, 1910—

JAMES MUNSIE BELL, Ph. D., Associate Professor of Physical Chemistry.

B. A., University of Toronto, 1902; M. A., *ibid.*, 1905; Assistant in Chemistry, Cornell University, 1902-1903; Graduate Scholar in Chemistry, *ibid.*, 1903-1904; Sage Fellow in Chemistry, *ibid.*, 1904-1905; Ph. D., *ibid.*, 1905; Associate Professor of Physical Chemistry, University of North Carolina, 1910—

KENT JAMES BROWN, Ph. D., Associate Professor of German.

A. B., Dickinson College, 1901; Ph. D., University of Pennsylvania, 1905; Student, University of Berlin, 1904-1905; Student, University of Munich, 1909-1911; Assistant in German, University of Pennsylvania, 1902-1904; Instructor in German, State University of Iowa, 1911-1912; Associate Professor of German, University of North Carolina, 1912—

GEORGE KENNETH GRANT HENRY, A. M., Instructor in Latin.

A. B., Hamilton College, 1900; A. M., *ibid.*, 1904; Instructor in Mathematics, University of North Carolina, 1908-1909; Instructor in Latin, *ibid.*, 1909—

JOHN GROVER BEARD, Ph. G., Instructor in Pharmacy.

Assistant in Pharmacy, University of North Carolina, 1908-1909; Ph. G., *ibid.*, 1909; Instructor in Pharmacy, *ibid.*, 1909—

VIVIAN LEROY CHRISLER, A. M., Instructor in Physics.

A. B., Piedmont College, 1902; Assistant in Physics, University of Nebraska, 1906-1909; B. S., *ibid.*, 1908; A. M., *ibid.*, 1909; Instructor in Science and Mathematics, Piedmont College, 1909-1910; Instructor in Physics, University of North Carolina, 1910—

THEOPHILUS RANDOLPH EAGLES, JR., A. M., Instructor in Mathematics.

A. B., University of North Carolina, 1908; A. M., *ibid.*, 1912; Professor of Mathematics, and Science, Catawba College, 1908-1909; Professor of Mathematics, Bethany College, 1909-1910; Instructor in Mathematics, University of North Carolina, 1910—

GEORGE MARK SNEATH, A. M., Instructor in English.

A. B., Yale University, 1907; A. M., *ibid.*, 1910; Instructor in English, University of North Carolina, 1910—

JOHN WAYNE LASLEY, A. M., Instructor in Mathematics.

A. B, University of North Carolina, 1910; Fellow in Mathematics, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; Instructor in Mathematics, *ibid.*, 1911—

DANIEL HUGER BACOT, JR., A. M., Instructor in History.

A. B., College of Charleston, 1908; Assistant in English, *ibid.*, 1908-1909; A. M., *ibid.*, 1909; Student, Harvard University, 1909-1911; A. M., *ibid.*, 1910; Instructor in History, University of North Carolina, 1911—

WILBUR HIGH ROYSTER, A. M., Instructor in Latin.

A. B., University of North Carolina, 1907; Student, Johns Hopkins University, 1907-1908; Student, American School of Classical Studies, Athens, Greece, 1908-1909; Student, Harvard University, 1909-1912; A. M., *ibid.*, 1911; Instructor in Latin, University of North Carolina, 1912—

WESLEY CRITZ GEORGE, A. M., Instructor in Zoology.

A. B., University of North Carolina, 1911; A. M., *ibid.*, 1912; Instructor in Zoology, University of North Carolina, 1912—

CHARLES SCOTT VENABLE, A. M., Instructor in Chemistry.

A. B., University of North Carolina, 1910; Fellow in Chemistry, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; Instructor in Chemistry, *ibid.*, 1912—

EUGENE FRED PARKER, A. M., Instructor in the Romance Languages.

B. S., Norwich University, 1907; A. M., Harvard University, 1909; Instructor in the Romance Languages, Union College, 1909-1911; Instructor in the Romance Languages, University of North Carolina, 1912—

JOHN ELIPHALET SMITH, M. S., Instructor in Geology.

B. S., Oregon Agricultural College, 1902; M. S., Iowa State College, 1911; Graduate Student, University of Missouri, 1911-1912; Assistant in Botany, Kansas State College, 1908-1910; Instructor in Geology, University of North Carolina, 1912—

Alexander Morse Atkinson, Instructor in Drawing.
Student, University of North Carolina, 1908-1912; Instructor in Drawing, University of North Carolina, 1912—

James Talmage Dobbins, A. M., Le Doux Fellow in Chemistry.

William Lewis Jeffries, A. M., Toch Fellow in Chemistry.

Burke Haywood Knight, A. B., Fellow in Technical Chemistry.

Lucius Eugene Stacy, Jr., A. B., Fellow in Organic Chemistry.

Grady Rudisill Roberts, Assistant in Anatomy.

William Battle Cobb, A. B., Assistant in Botany.

Paul Roby Bryan, Assistant in Chemistry.

Carnie Blake Carter, Assistant in Chemistry.

Frank Davies Conroy, Assistant in Chemistry.

Clarence Ballew Hoke, Assistant in Chemistry.

Jackson Townsend, Assistant in Chemistry.

John Madison Labberton, Assistant in Electrical Engineering.

Robert Campbell Jurney, Assistant in Geology.

John Jay Henderson, B. Sc., A. M., Assistant in German.

James Steven Simmons, Assistant in Histology.

Julian Nolley Tolar, Assistant in Histology.

John Robert Gentry, Assistant in the Library.

Jesse Forbes Pugh, Assistant in the Library.

Eugene Ralph Rankin, Assistant in the Library.

Thomas Michael Ramsaur, Assistant in the Library.

George Pickett Wilson, Assistant in the Library.

Adolphus Bart Greenwood, A. B., Assistant in Pharmacology.

James Blaine Scarborough, Assistant in Physics.

Jasper Louis Phillips, Assistant in Surveying.

Allyn Raymond Brownson, Assistant in Zoology.

OTHER OFFICERS

Walter Dallam Toy, M. A., Secretary of the Faculty.
Louis Round Wilson, Ph. D., Librarian.
Nan Spotswood Strudwick, Assistant Librarian.
Robert Baker Lawson, M. D., Director of the Gymnasium.
Nat J. Cartmell, Director of Athletics.
Thomas Spurgeon Hughes, Assistant in the Gymnasium.
Carl Duffy Taylor, Assistant in the Gymnasium.
Julius Algernon Warren, Treasurer and Bursar.
Charles Thomas Woollen, Proctor.
Thomas James Wilson, Jr., Ph. D., Registrar.
Theophilus Randolph Eagles, A. M., Recorder of Absences.
Edmund Pleasant Hall, A. B., General Secretary of the Young Men's Christian Association.

STANDING COMMITTEES OF THE FACULTY

The President is a member *ex-officio* of all committees.

Executive. President Venable; Professors Herty, Graham, Patterson.

Auditing. Professors Cain, Toy.

Athletics. Professors Herty, Royster, Mangum, Henderson, Bain, Winston.

Catalogue. Professors Bain, T. J. Wilson, Daggett.

Commons. Professors Toy, McKie.

Library. Professors Raper, Coker, Royster, Dey.

Record. Professors Royster, Hamilton, L. R. Wilson, Hickerson.

University Magazine. Professors Cobb, Hamilton, Bain.

Public Lectures. Professors Henderson, Bain, McGehee, MacNider, Coker.

Debates. Professors Williams, Raper, Graham.

Self Help. Professors Stacy, Hickerson.

University Press Association. Professor Graham.

University Sermons. Professors Toy, Raper, McKie.

Alumni Organizations. Professors Bernard, T. J. Wilson, Patterson.

Graduate School. President Venable; Professors Raper, Graham, Chase.

Entrance Certificates. Professors Walker, Hamilton, Royster, Hickerson, Daggett.

Schedules. Professors T. J. Wilson, Stacy.

Library Appropriations. President Venable; Professors Raper, Graham.

Courses of Study. Professors Graham, Patterson, Bain.

Commencement Program. Professors Graham, Pratt, Henderson.

McNair Lectures. President Venable; Professors Graham, Herty, Coker.

Absences. Professor Stacy, Mr. Eagles.

Advanced Standing. President Venable; Professors Chase, T. J. Wilson.

University Extension. Professors L. R. Wilson, Stacy, Patterson, Graham, Walker.

Entrance Conditions. Professor Bain, Mr. Eagles.

PART TWO

THE COLLEGE OF LIBERAL ARTS
THE SCHOOL OF APPLIED SCIENCE
THE GRADUATE SCHOOL

The College of Liberal Arts

There are three courses of instruction outlined in The College of Liberal Arts. The object of these courses is to provide a general, well-rounded, liberal education. The first two years of each allow but little election of studies. Beginning with the Junior year the election is wider, and a student can devote himself, to a large extent, to such special lines of study as he may prefer, although there are certain general restrictions designed to guard against too narrow a specialization. The first course, requiring both Greek and Latin, corresponds to the old classical course. The second course is a combination of ancient and modern languages and science. The third course is largely scientific. All of these courses lead to the one degree of Bachelor of Arts, and they are so balanced as to make the work equally difficult and worthy.

ADMISSION

Admission Into the Freshman Class

Candidates for admission into the Freshman Class are received by examination or by certificates from accredited schools.

Entrance examinations are held in September. Arrangements have been made with certain schools in the State whereby examinations for admission may be held in May, also, at the schools. The University will accept the uniform entrance examination papers of the Association of Colleges and Preparatory Schools of the Southern States, provided such papers are properly vouched for and sent sealed to the University for grading. Candidates for admission by examination must report at 9 A. M., *Monday, September 8, 1913,* to the Registrar, who will appoint time and place for examination.

Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to examine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms

furnished on application to the Registrar, and should be sent in as early as possible in the summer vacation. They must be submitted for approval to the Committee on Entrance Certificates in the Alumni Building during the period of registration *(September 8, 9, 10, 1913)*.

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:

*English *a, b, c,*	3.	units
History *a, b, c,*	3.	units
Mathematics *a, b, c, d,*	3.5	units
Greek *a, b, c,*	3.	units
Latin *a, b, c, d, e,*	4.7	units
French *a, b,*	3.	units
German *a, b,*	3.	units
Spanish,	2.	units
Botany,	1.	unit
Chemistry,	1.	unit
Physics,	1.	unit
Zoology,	1.	unit
Drawing,	1.	unit
Civics,	.5	unit
Physiography,	.5	unit
Physiology,	.5	unit

It will be noticed that each subject has a valuation by units. A unit means a definite amount of a subject satisfactorily completed in a reasonable length of time. For example, one unit in History means the satisfactory completion of a standard text book in English or United States History in a period of study continuing through an entire High School session; one-half unit in Solid Geometry means the completion of the four books of Solid Geometry in about one-half a session; the fourteen units mentioned below correspond to the four years of work in a good High School.

Unconditioned entrance to the undergraduate departments of the University requires a total of 14 units selected from the list above. A candidate, however, who desires to pursue any one of the regular courses leading to a Bachelor's degree

* For specific requirements in each of the subjects in this list see pp. 34-38.

must make his selection from the list of accepted subjects accord with the course to be pursued after entrance. Thus, the undergraduate course requiring Greek, Latin, Mathematics, and English necessitates the selection on the part of the candidate of a specified number of units in each of these branches (see below). The same is true, also, of entrance to all other courses.

The following tables indicate the requirements for entrance to each of the three courses leading to the degree of Bachelor of Arts (see page 39).

For entrance to group 1:

English *a, b,* and *c,*	3.	units
History *a* or *b,*	2.	units
Mathematics *a, b,* and *c,*	3.	units
Greek *a* and *b,*	2.	units
Latin *a, b, c,* and *d,*	3.7	units
Elective	.3	unit

For entrance to group 2:

English *a, b,* and *c,*	3.	units
History *a* or *b,*	2.	units
Mathematics *a, b,* and *c,*	3.	units
Latin *a, b, c,* and *d,*	3.7	units
French *a* or German *a,*	2.	units
Elective	.3	unit

For entrance to group 3:

English *a, b,* and *c,*	3.	units
History *a* or *b,*	2.	units
Mathematics *a, b,* and *c,*	3.	units
French *a,*	2.	units
German *a,*	2.	units
Science	1.	unit
Elective	1.	unit

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below the minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed acccording to the regulations given in the next paragraph. The Com-

mittee has the discretionary power to admit certain candidates whose credits fall below 12 units, if, in the opinion of the Committee, the maturity of the candidate, who must be at least twenty-one years of age, justifies such action. Candidates thus admitted will be classed as special students.

Entrance conditions in any subject must be made up by September of the following year. A student who fails to comply with this regulation will not be allowed to register for any course in his Sophomore year.

The requirements in each of the subjects accepted for entrance are as follows:

ENGLISH: (1913-1915) *(a)* Grammar and Rhetoric 1. unit

(b) Reading and Practice ..... 1. unit

Two from each of the following groups:—

A. 1. Selections from the *Old Testament* (the chief narrative episodes in *Genesis, Exodus, Joshua, Judges, Samuel, Kings,* and *Daniel,* and the books of *Ruth* and *Esther*); 2. the *Odyssey,* (English translation), (Books I, II, III, IV, V, XV, XVI, XVII may be omitted); 3. the *Iliad,* (English translation), (Books XI, XIII, XIV, XV, XVII, XXI may be omitted); 4. Virgil's *Aeneid* (English translation).

A unit from any other group may be substituted for any unit in this group.

B. 1. Shakespeare's *The Merchant of Venice; 2. A Midsummer Night's Dream; 3. As You Like It; 4. Twelfth Night; 5. Henry the Fifth; 6. Julius Caesar.*

C. 1. Defoe's *Robinson Crusoe,* (Part I); 2. Goldsmith's *The Vicar of Wakefield;* 3. either Scott's *Ivanhoe* or *Quentin Durward;* 4. Hawthorne's *The House of Seven Gables;* 5. either Dickens's *David Copperfield* or *A Tale of Two Cities;* 6. Thackeray's *Henry Esmond;* 7. Mrs. Gaskell's *Cranford;* 8. George Eliot's *Silas Marner;* 9. Stevenson's *Treasure Island.*

D. 1. Bunyan's *The Pilgrim's Progress,* (Part I); 2. *The Sir Roger de Coverley Papers* in *The Spectator;* 3. Franklin's *Autobiography;* 4. Irving's *Sketch Book;* 5. Macaulay's Essays on *Lord Clive* and *Warren Hastings;* 6. Thackeray's *English Humorists;* 7. Selections from Lincoln (including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the last public Address, and Letter to Horace Greeley) along with a brief memoir or estimate; 8. Parkman's *The Ore-*

gon Trail; 9. Either Thoreau's *Walden,* or Huxley's *Autobiography* and selections from *Lay Sermons,* including the addresses on *Improving Natural Knowledge, A Liberal Education,* and *A Piece of Chalk;* 10. Stevenson's *An Inland Voyage* and *Travels with a Donkey.*

E. 1. Palgrave's *Golden Treasury,* (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; 2. Gray's *An Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village;* 3. Coleridge's *The Rime of the Ancient Mariner* and Lowell's *The Vision of Sir Launfal;* 4. Scott's *The Lady of the Lake;* 5. Byron's *Childe Harold,* Canto IV, and *The Prisoner of Chillon;* 6. Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; 7. Poe's *The Raven,* Longfellow's *The Courtship of Miles Standish,* and Whittier's *Snow-bound;* 8. Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum;* 9. Tennyson's *Gareth and Lynette, Launcelot and Elaine,* and *The Passing of Arthur;* 10. Browning's *Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City.*

The candidate is expected to have sufficient knowledge of these books to enable him to answer general questions on their substance. The form of the examination will be the composition of paragraphs on a number of topics connected with the works. The ability of the candidate to express his ideas in clear, accurate English is a main consideration. No applicant should present himself who is notably deficient in spelling, grammar, or paragraphing.

(c) Study and Practice ..... 1. unit

Shakespeare's *Macbeth;* Milton's *L'Allegro, Il Penseroso,* and *Comus;* Burke's *Speech on Conciliation with America,* or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration;* Macaulay's *Life of Johnson,* or Carlyle's *Essay on Burns.*

The questions on these books will be on subject matter and structure.

HISTORY: *(a)* The histories of the United States, Greece, and Rome, as outlined in the best text books for high

schools ..... 2. units

(b) The histories of the United States and England as outlined in the best text books for high schools, 2. units

(c) Mediæval History ..... 1. unit

MATHEMATICS: *(a)* Algebra ..... 1.5 units
The whole of a high school algebra including quadratic equations, binomial theorem, and progressions.

(b) The whole of Plane Geometry..... 1. unit

(c) The whole of Solid Geometry..... .5 unit

(d) Trigonometry ..... .5 unit

Plane trigonometry and spherical trigonometry through right triangles.

GREEK: *(a)* Grammar and Composition..... 1. unit
Acquaintance with the more usual forms and constructions; simple narrative in English, based upon Xenophon's Anabasis, to be translated into Greek.

(b) Xenophon ..... 1. unit
The first four books of the Anabasis.

(c) Homer ..... 1. unit
The first three books of the Iliad, (omitting II., 494—end), with study of Homeric forms, constructions, and prosody.

LATIN: *(a)* Grammar and Composition..... 1. unit
Forms, syntax, and prosody; simple narrative in English, based upon the prose read, to be translated into Latin.

(b) Cæsar ..... 1. unit
The first four books of the Gallic War.

(c) Cicero ..... .7 unit
The four orations against Catiline.

(d) Vergil ..... 1. unit
The first six books of the Æneid, study of hexameter verse.

(e) Cornelius Nepos ..... 1. unit
The first fifteen lives.

FRENCH: *(a)* Elementary ..... 2. units
The forms and uses of the various parts of speech, including irregular verbs; translation of 250 or more pages of easy prose into idiomatic English; translation of simple English sentences into French; pronunciation.

(b) Intermediate ..... 1. unit
Translation of 400 or more pages of French of ordinary difficulty.

GERMAN: *(a)* Elementary ..... 2. units
Inflection, including the most common irregular verbs; the ordinary laws of German syntax; translation of 200 or more pages of easy German into idiomatic English; translation of simple English sentences, based upon passages read, into German.

(b) Intermediate ..... 1. unit
Translation of 400 or more pages of German of ordinary difficulty.

SPANISH: Elementary ..... 2. units
Inflection, including the most common irregular verbs; ordinary laws of syntax; translation of 250 pages or more of easy Spanish into idiomatic English; translation of simple English sentences, based upon the passages read, into Spanish.

BOTANY: ..... 1. unit
A course such as is contained in any standard text book; laboratory work.

CHEMISTRY: ..... 1. unit
A course such as is contained in any standard text book; laboratory work.

PHYSICS: ..... 1. unit
A course such as is contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

PHYSIOGRAPHY: ..... .5 unit
A course such as is contained in any standard text book.

PHYSIOLOGY: ..... .5 unit
A course such as is contained in any standard text book.

ZOOLOGY: ..... 1. unit
A year's course such as is contained in any standard text book.

CIVICS: ..... .5 unit
A course such as is contained in any standard text book.

DRAWING: ..... 1. unit
A year's work, including simple geometrical plane and solid figures, simple pieces of machinery; elementary rules of perspective, light, and shade, as applied in free-hand sketching.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, with or without complete examination. He is subject not only to the examinations required of candidates for admission into the Freshman Class, but to special examinations both in all the required studies already pursued by the class which he desires to enter, and in as many elective studies as would have been required of him as a member of that class. When satisfied with the apparent fitness of the candidate, the examining committee may, in spite of his deficiencies in some studies, admit him to an advanced class; but a candidate so admitted is not recommended for the degree until the deficiencies are made good. The examining committee may accept, also, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing in place of an examination upon such previous work.

A candidate for advanced standing should present himself for examination on the same days and at the same hours as candidates for admission into the Freshman Class.

Curriculum

COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS

In order to be recommended for the degree of Bachelor of Arts, the student must have passed satisfactory examinations in all the studies required in one of the groups prescribed for the Freshman and Sophomore years, and in a number of elective studies during the Junior and Senior years sufficient to amount to an average of fifteen hours of lectures or recitations a week for each of these years.

The group of studies selected for the Freshman and Sophomore years must correspond to the group of subjects offered for entrance.

Freshman Year

Group 1.	Group 2.	Group 3.
English 1 (3)*	English 1 (3)	English 1 (3)
Mathematics 1 (4)	Mathematics 1 (4)	Mathematics 1 (4)
Greek 1 (4)	Select one: Greek 1 (4)	German 1 (3)
Latin 1 (4)	Select one: Latin 1 (4)	French 1 (3)
Pub. Speaking 1 (1)	Select one: German 1 (3)	History 1 (3)
	Select one: French 1 (3)	Pub. Speaking 1 (1)
	History 1 (3)	
	Pub. Speaking 1 (1)	

Sophomore Year

Group 1.	Group 2.	Group 3.
English 2 (3)	English 2 (3)	English 2 (3)
Select one: Greek 2 (3)	Select two: Greek 2 (3)	Math. 2 (3)
Select one: Latin 2 (3)	Select two: Latin 2 (3)	Chem. 1 (3)
Select one: Greek 2 (3)	Select two: German 1 (3)	Physics 1 (3)
Select one: Latin 2 (3)	Select two: French 1 (3)	Elective (3)
Select one: German 1 (3)	Select two: German 2 (3)	
Select one: French 1 (3)	Select two: French 2 (3)	
Select one: Math. 2 (3)	Select one: Math. 2 (3)	
Select one: Chem. 1 (3)	Select one: Physics 1 (3)	
Select one: Physics 1 (3)	Select one: Elective (3)	
Elective (3)		

Sophomore Electives: Greek 2 (3), Latin 2 (3), German 1 (3), French 1 (3), History 3 (3), History 8 (3), Botany 1 (3), Chemistry 1 (3), Geology 1 (3), Mathematics 2 (3), Physics 1 (3), Zoology 1 (3).

* Numerals in parentheses indicate the number of hours a week.

The selection made must in each case be submitted to Professor Howe for approval.

Junior Year

ELECTIVE STUDIES amounting to fifteen hours a week, of which at least one study must be taken from each of the following groups, A, B, and C:

A

English 3 (3), 5 (3), 6 (3), 8 (3), 9 (2), 10 (3), 11 (3), 12 (2), 14 (3), 16 (2).
Public Speaking 2 (2), 3 (2), 4 (2).
Greek 2 (3), 4 (2), 5 (1), 6 (2), 7 (3), 9 (1), 10 (1½), 14A (1), 14B (1), 15 (2), 16 (1), 19 (2).
Latin 2 (3), 4 (2), 5 (2), 6 (2), 7 (1), 7A (1), 8 (1), 9 (2), 10 (2), 13 (2), 15 (2), 16 (1).
German 2A (3), 2B (3), 3 (2), 4 (3), 5 (3), 6 (3), 7A (2), 7B (2).
French 2 (3), 3 (3), 4A (3), 4B (3), 5 (3).
Spanish 1 (3), 2 (3), 3 (2).
Italian 1 (3).

B

History 2 (2), 3 (3), 4 (2), 5 (2), 6 (1), 7 (3), 8 (3), 9 (2), 11 (1), 12A (1), 12B (1), 15 (2).
Philosophy 1 (3), 2 (2), 3 (2), 4 (3), 6 (3).
Economics 1 (3), 4 (3), 5 (2).
Education 1 and 2 (3), 3 (1½), 4 (1½), 5 (1), 6 (1), 9 (2), 14 (2).

C

Mathematics 2 (3), 3 (3), 3A (2), 3B (2), 3D (1), 3E (1), 4 (3), 5 (3), 11A (1), 14 (2).
Physics 1 (3), 2 (2), 4 (2), 5 (2), 6 (2), 10 (3), 15 (2).
Chemistry 1 (3), 2 (3), 3 (2), 4 (3), 5 (3), 7 (3), 16 (1½).
Zoology 1 (3), 2 (3), 3 (5).
Botany 1 (3), 2 (3), 3 (3).
Geology 1 (3), 2 (3), 3 (3), 4 (3), 5 (3), 8 (2), 8A (1), 12 (1), 13 (1½).

The selection made must in each case be submitted to Professor Patterson for approval.

Senior Year

ELECTIVE STUDIES amounting to fifteen hours a week, subject to the condition stated above for the Junior Year. In addition to the courses named for Junior Year the following courses are also open to Seniors:

A

English 7.
Greek 17 (1).
Latin 14 (1).

B

History 10 (2).
Economics 2 (2), 3 (2).
Education 7 (3).
Law (3).

C

Mathematics 3C (1), 6 (3), 7 (2), 7A (3), 8 (3), 10 (4), 11B (1), 13 (2), 16 (2).
Physics 11 (4), 12A (1), 12B (1), 13B (1), 14 (3).
Chemistry 5A (2), 6 (1), 7A (2), 7B (2), 8 (5), 17 (3).
Geology 6 (3), 7 (3).
Anatomy 1 (3).
Physiology 1 (1½).

The selection made must in each case be submitted to the Dean of the College of Liberal Arts for approval.

Special Courses

Elective Studies may be selected by students who are unable to complete a course leading to the degree. Students intending to pursue these elective studies must prove their qualifications according to the regulations on page 31. After satisfying these entrance requirements, they may elect such studies as they are qualified to pursue.

Special Course for Students Intending to Teach

First Year: English 1 (3), Mathematics 1 (4), History 1 (3), Education 1 and 2 (3); one study from the following group: Latin 1 (4), Greek A (4), Greek 1 (4), French A (3), French 1 (3), German A (3), German 1 (3).

Second Year: English 2 (3), Physics A (3) or Chemistry 1 (3), Education 3 and 4 (3), Education 5 and 6 (2); electives amounting to a total of six hours from the following group: German, French, Greek, Latin, Mathematics, Geology, Physiology, History.

A certificate will be granted upon the completion of this course.

Special Course Preparatory to Medicine

English 1 (3), Zoology 1 (3), Physics A (3), Chemistry 1 (3), Chemistry 3A (1½), Chemistry 4A (1).

The prerequisites for this course are the requirements of the ordinary high school course which would admit a student regularly to the University. (See page 31.)

Courses of Instruction

DEPARTMENT OF BOTANY

William Chambers Coker, Ph. D., *Professor of Botany.*
William Battle Cobb, A. B., *Assistant in Botany.*

[For description of Biological Laboratories, see page 187.]

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Cobb.

2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Junior and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Cobb.

3. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Junior and Senior elective. *Both terms, three hours.* Professor Coker and Mr. Cobb.

For Course 4, see Graduate School.

DEPARTMENT OF CHEMISTRY

Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*

Francis Preston Venable, Ph. D., D. Sc., LL. D., *Lecturer on the History of Chemistry.*

Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*

James Munsie Bell, Ph. D., *Associate Professor of Physical Chemistry.*

Charles Scott Venable, A. M., *Instructor in Chemistry.*

James Talmage Dobbins, A. M., *Le Doux Fellow in Chemistry.*

William Lewis Jeffries, A. M., *Toch Fellow in Chemistry.*

BURKE HAYWOOD KNIGHT, A. B., *Fellow in Technical Chemistry.*

LUCIUS EUGENE STACY, JR., A. B., *Fellow in Organic Chemistry.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

JACKSON TOWNSEND, *Assistant in Chemistry.*

[For description of Chemical Laboratories, see page 185.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professor HERTY, and Messrs. VENABLE and CARTER.

Laboratory fee, $1.25 a term.

2. Technical Chemistry: (*a*) Industrial and Agricultural Chemistry; glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (*b*) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Junior and Senior elective; prerequisite, Chemistry 1. *Both terms, three hours.* Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. May be taken with Chemistry 1. Junior and Senior elective. *Both terms, two hours.* Professor WHEELER and Mr. HOKE.

Laboratory fee, $5.00 a term.

4. Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, $5.00 a term.

5. Organic Chemistry: Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, $4.00 a term.

5A. Organic Chemistry: laboratory work chiefly. This course is designed to give further practice in dealing with organic substances. Senior elective; prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, $6.00 a term.

6. The History of Chemistry; Senior elective; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.* President VENABLE.

7. Elementary Physical Chemistry: Junior and Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, $2.00 a term.

7A. Physical Chemistry: lectures and text books, with laboratory work. Senior elective; prerequisite, Chemistry 7. *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, $2.00 a term.

7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, $2.00 a term.

8. Quantitative Analysis: laboratory work; gas analysis and extension of course 4 along technical lines; bacteriological examination of water (with Professor MacNider); research. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, five hours.* Professor HERTY.

Laboratory fee, $10.00 a term.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds. Lectures and text book. Junior and Senior elective; prerequisite,

Chemistry 1, 3, and 4. *Spring term, three hours.* Professor HERTY.

17. Quantitative Analysis: laboratory work. Extension of course 4 along technical lines. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Professor HERTY.

Laboratory fee, $5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

For courses 3A, 4A, 9, and 10, see School of Medicine and School of Pharmacy.

For courses 11, 12, 13, 14, and 15, see Graduate School.

DEPARTMENT OF ECONOMICS AND FINANCE

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

1. General Economics: A general study of the principles which are involved in the production, distribution, and consumption of wealth, and in the relation of wealth to welfare; a special study of labor, land, capital, business management, and the state, as factors in the production and distribution of wealth. Raper's *Principles of Wealth and Welfare*, and Seligman's *Principles of Economics.* Junior and Senior elective *Both terms, three hours.* Professor RAPER.

2. Public Finance: A general study of the principles which are involved in the revenues and expenditures of the state, and in the relation of the state to the industries of its citizens; a special study of taxation and the tariff. Lectures, readings, and reports. Adams' *The Science of Finance.* Senior elective. *Both terms, two hours.* Professor RAPER.

Given in alternate years; to be omitted in 1913-1914.

3. Economic Institutions and Thought in England and the United States: A general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the

United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England,* Brooks' *The Social Unrest,* Spargo's *Socialism,* and the *Communist Manifesto* (Marx and Engels). Senior elective. *Both terms, two hours.* Professor RAPER.

4. Money, Banking, and Insurance: (*a*) A general study of the principles, functions, and forms of money and banking; a special study of current monetary problems. Lectures, readings, and reports. Kinley's *Money,* Dunbar's *Theory and History of Banking,* (2nd Ed.), and Jones' *Economic Crises.* (*b*) A general study of the principles and methods of insurance; a special study of the regulation of insurance by the state. Lectures and readings. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.

5. Transportation and Labor: (*a*) A general study, from the historical and critical points of view, of railway transportation in such representative countries as Great Britain, France, Italy, Germany, and the United States; the general conditions of traffic, the passenger service and rates, the freight service and rates, and the ideals and machinery of the state's relation receive special consideration. Lectures, readings, and reports. Raper's *Railway Transportation: a History of its Economics and its Relation to the State.* (*b*) Labor as an agent in the production of wealth; wages; some wages problems, as, for instance, woman and child labor, immigration, sweating system, and poverty; some of the solutions of these problems, as, for instance, strikes, boycotts, trades unions, conciliation and arbitration, profit-sharing, co-operation, industrial education, and the factory acts; the relation of the state to wages problems. Adams and Sumner's *Labor Problems.* Junior and Senior elective. *Both terms, two hours.*

Given in alternate years; to be given in 1913-1914.

A certificate is granted to a student who has completed, with credit, courses 1-5.

DEPARTMENT OF EDUCATION

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

1. The Science of Teaching: the practical application of scientific principles to the teaching of elementary branches; a brief study of modern educational theories; preparation of model lessons according to pedagogical principles; lectures, text books, and theses. Junior and Senior elective, open only to those who intend to teach (not counted for a degree unless Education 2 is also taken). *Fall term, three hours.* Professor NOBLE.

2. The Art of Teaching: a careful study of the principles and methods involved in successfully teaching those studies usually taught in the best public and private elementary schools; lectures, text books, and theses. Junior and Senior elective, open only to those who intend to teach; prerequisite, Education 1. *Spring term, three hours.* Professor NOBLE.

3. Science and Practice of Education: a study of modern education from the view-point of both teacher and citizen; the development and arrangement of a High School course of study; lectures, text books, parallel readings, theses. Junior and Senior elective. *Fall term, three hours.* Professor NOBLE.

4. The General History of Education: the development of educational ideals in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems; lectures, text book, parallel readings, criticisms, theses. Junior and Senior elective. *Spring term, three hours.* Professor NOBLE.

5. High School Organization: a study of the organization of the American high school with special attention to its curricula and methods. Text-books, lectures, and assigned readings. Brown's *The American High School* and DeGarmo's *Principles of Secondary Education*. Open to teachers. *Fall term, two hours.* Professor WALKER.

6. High School Administration: a study of the principles and problems of American high school administration. Text-books, lectures, and assigned readings. Hollister's *High School Administration*. Open to teachers; prerequisite, Education 5. *Spring term, two hours.* Professor WALKER.

7. Educational Psychology: a study of some of the chief psychological traits of the developing individual and their importance for education. Lectures, readings, theses. Senior elective: prerequisite, Philosophy 1. *Both terms, three hours.* Professor CHASE.

9. Education and Society: a study of education as a social force; the social nature of educational institutions; the social functions of the modern school. Lectures, readings. Junior and Senior elective. *Both terms, two hours.* Professor CHASE.

14. Current Education: a study of present educational tendencies as seen in typical rural and city school systems, and the development and supervision of the American public school. For teachers who wish to prepare for work as principals and superintendents. Junior and Senior elective. *Both terms, two hours.* Professor NOBLE.

For courses 12 and 13, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1 to 4 inclusive, together with either courses 5 and 6 or courses 7 and 9.

Library Administration

1. Library Administration: a study of library administration, bibliography, book selection, reading courses, debate references, indexing, and technical library meth-

ods; practice in the University library. This course is open to Library Fellows and Assistants; upon the approval of the Committee on Courses, it may also be counted for the degree by students preparing for library positions. *Both terms, two hours.* Professor WILSON.

DEPARTMENT OF ENGLISH

JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

EDWARD KIDDER GRAHAM, A. M., *Professor of English.*

TOM PEETE CROSS, Ph. D., *Professor of English.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

JOHN MANNING BOOKER, Ph. D., *Associate Professor of English.*

GEORGE MARK SNEATH, A. M., *Instructor in English.*

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.* Professors ROYSTER and CROSS, Associate Professor BOOKER, and Mr. SNEATH.

2. First term: Rhetoric and Composition; preparation and criticism of daily and weekly themes. Second term: History of English Literature. Reports on assigned readings. Required of Sophomores. *Both terms, three hours.* Professor ROYSTER, Associate Professor BOOKER, and Mr. SNEATH.

3. Advanced Composition: constant practice throughout the year in the various forms of prose discourse. Lectures and discussions. Junior and Senior elective; prerequisite, a grade of 80 on English 2. *Both terms, three hours.* Professor GRAHAM.

4. Essays and orations: lectures; analysis of representative essays and orations; construction of essays and

orations. Junior and Senior elective. *Both terms, three hours.* Professor GRAHAM.

To be omitted in 1913-1914. See course 14.

5. Shakespeare. First term: The Rise and Development of the Drama in England, from the Miracle Plays through Marlowe. Second term: A detailed study of four plays of Shakespeare and a rapid reading of the remainder. Junior and Senior elective. *Both terms, three hours.* Professor GRAHAM.

6. Introductory course in Old English and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo Saxon Reader.* In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer;* Emerson's *Middle English Reader.* The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relation to present-day English; many points of confusion in Modern English, unexplained by the rules of logical grammar, are made clear. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Latin Department.

7. Advanced course in Old English and Middle English. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf;* Blackburn's *Exodus and Daniel.* A study of Chaucer's minor poems will be the basis of the work of the second term, 1914. Senior elective; prerequisite, English 6 or its equivalent. *Both terms, two hours.* Professor ROYSTER.

8. History of the English Language. This course supplements English 6. It will trace the growth of the English language from its beginnings in England until to-day. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

9. The Contemporary Drama. In this course the condition of the stage and the character of the plays in England from 1840 to the present day will be sketched. The lectures will deal particularly with the imitation and adaptation of French plays, the attempts to put into dramatic form problems of contemporary life and manners, the sociological and artistic tendencies of the modern drama, the manifestations of decadence, the influence of Ibsen, the recent German drama, the literary drama, and the present day outlook. A large number of representative modern dramas will be assigned for reading. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.

10. American Literature. American Literature in the light of American history and culture. Special attention to the literature of New England (1825-1892), to Southern literature since the Civil War, and to the western humorists. Junior and Senior elective. *Both terms, three hours.* Associate Professor BOOKER.

11. Renaissance and Elizabethan Literature. (1557-1642.) A study of the principal writers, except Shakespeare, from the publication of Tottel's *Miscellany* to the outbreak of the Civil War. Junior and Senior elective. Open to Sophomores by special permission of the Department. *Both terms, three hours.* Professor CROSS.

12. Eighteenth Century Literature. (1660-1799.) A study of Classicism and the Beginnings of Romanticism. Junior and Senior elective. Open to Sophomores by special permission of the Department. *Both terms, two hours.* Professor CROSS.

14. Nineteenth Century Literature. (1799-1892.) Emphasis in the first term on Wordsworth, Byron, and Shelley; in the second on Arnold, Tennyson, and

Browning. Junior and Senior elective. Open to Sophomores by special permission of the Department. *Both terms, three hours.* Professor GRAHAM.

16. Journalism. Practice in the forms of journalistic composition. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.

An honor certificate, carrying the recommendation of the Department, is granted a student who has completed with an average grade of not less than 85 courses 1, 2, 6, 11, 12, and 14.

Public Speaking

1. A course in declamation and in simple extempore speaking on subjects of current interest. The aim of this course is to correct faults in speech and to form the habit of simple, clear, direct speaking. Required of Freshmen. *Both terms, one hour.* Associate Professor MCKIE.

2. The Forms of Public Address: the argumentative speech, the commemorative address, the after dinner speech, the eulogy. Open to Sophomores who have attained a grade of 2 in English 1, and to Juniors and Seniors; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor MCKIE.

3. Debate: the preparation of briefs and forensics, and practice in oral debate. Junior and Senior elective; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor MCKIE.

4. Interpretative Speaking and Reading: a course designed to develop through vocal expression an appreciation of good literature, and an ability to interest others in the works of great writers. Open to Sophomores who have attained a grade of 2 in Public Speaking 1, and to Juniors and Seniors. *Both terms, two hours.* Associate Professor MCKIE.

DEPARTMENT OF GEOLOGY AND MINERALOGY

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*

JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*

ROBERT CAMPBELL JURNEY, *Assistant in Geology.*

[For description of Geological Laboratories, see page 188.]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COBB and Mr. JURNEY.

   Laboratory fee, $3.00 for the spring term.

2. Mineralogy: lectures with laboratory and field work; Lewis's *Tables* and Dana's *Manual of Mineralogy.* Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

   Laboratory fee, $5.00 a term.

3. General Critical Geology: lectures with field work; laboratory work on rocks and fossils; theses. Junior and Senior elective. *Both terms, three hours.* Professor COBB.

   Laboratory fee, $3.00 for the fall term, $5.00 for the spring term.

4. Economic Geology: ore deposits and minerals; lectures with laboratory and field work; Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

   Laboratory fee, $1.00 a term.

5. Petrography: lectures, laboratory work, and theses. Junior and Senior elective; prerequisite, Geology 1 and 2. *Both terms, three hours.* Mr. SMITH.

6. Advanced field work and special research in Geology or Geography; problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Senior elective; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

7. Advanced course in Physiography. Senior elective; prerequisite, Geology 1 and Zoology 1 or Botany 1. *Both terms, three hours.* Professor COBB.

Laboratory fee, $2.00 a term.

8. Origin and Nature of Soils: field work, laboratory work, and theses. Students in this course are expected to keep Saturday open for field work. Junior and Senior elective; prerequisite, Geology 1 and 2, Chemistry 1 and 3, Botany 1. *Both terms, two hours.* Professor COBB.

Laboratory fee, $3.00 a term.

8A. Soils and Stones for Road Making: field work, laboratory work; prerequisite, Geology 1. *Both terms, one hour.* Mr. SMITH.

Laboratory fee, $1.00 a term.

11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work; prerequisite, Geology 1 and 2 and Chemistry 3. *Twenty-four lectures (Spring term).* Professor PRATT.

12. Advanced Work in Mineralogy. Senior elective. *One hour.* Professor PRATT.

13. Advanced Geological Field Work and Special Research: studies in the Deep River and Wadesboro areas of the Triassic rocks; a brief examination of the Potomac, Eocene, Lafayette, and Columbia deposits. This course is given in the summer. It covers five weeks, of which one is spent in Chapel Hill with daily meetings, the remaining four weeks are devoted to field work. Students who take this course will be expected to devote all their time to it. Junior and Senior elective. *One term, three hours.* Professor COBB.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

For course 9, see Graduate School.

For courses 10 and 10A, see School of Applied Science.

DEPARTMENT OF GERMANIC LANGUAGES

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

KENT JAMES BROWN, Ph. D., *Associate Professor of German.*

JOHN JAY HENDERSON, A. M., *Assistant in German.*

A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor BROWN and Mr. HENDERSON.

1. Translation, sight reading, composition, grammar. Required of Freshmen in Group 3, elective in Group 2; Sophomore elective. *Both terms, three hours.* Professor TOY and Associate Professor BROWN.

2A. Schiller: Maria Stuart, Wallenstein's Tod; Goethe: Egmont, Iphigenie auf Tauris; Lessing: Minna von Barnhelm. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Professor TOY.

2B. Wide reading of modern German prose, with lectures on the literature in the nineteenth century since Goethe's death. Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Associate Professor BROWN.

3. History of German Literature: lectures with parallel reading and written reports. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, two hours.* Professor TOY.

4. Middle High German: Paul's *Mittelhochdeutsche Grammatik;* Bachmann's *Mittelhochdeutsches Lesebuch;* translation into New High German. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Associate Professor BROWN.

This course alternates with course 5: to be omitted in 1913-1914.

5. Old High German: Braune's *Althochdeutsche Grammatik;* Braune's *Althochdeutsches Lesebuch.* Junior

and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Associate Professor BROWN.

This course alternates with course 4; to be given in 1913-1914.

6. Gothic: Braune's *Gotische Grammatik;* selected parts of Paul's *Grundriss der Germanischen Philologie.* Introduction to Germanic Philology. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, three hours.* Professor TOY.

7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, two hours.* Associate Professor BROWN.

This course may be elected only after consultation with the instructor.

7B. Goethe: Faust, Parts I and II. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, two hours.* Professor TOY.

This course may be elected only after consultation with the instructor. To be given in 1913-1914.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

DEPARTMENT OF GREEK

CHARLES WESLEY BAIN, M. A., *Professor of the Greek Language and Literature.*

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for entrance only. Moss's *First Greek Reader;* Babbitt's *Greek Grammar;* Xenophon's *Anabasis. Both terms, four hours.* Associate Professor BERNARD.

1. Xenophon's Symposium: review of important grammatical principles; Homer's Iliad, books I, II, and III, and Odyssey, book VI; Lysias, Selected Speeches. Reading at sight. Required of Freshmen in Group 1, elective in

Group 2. *Both terms, four hours.* Professor BAIN and Associate Professor BERNARD.

2. Plato, Apology and Crito; Euripides, Hecuba; Aristophanes, Frogs; reading at sight; lectures on Greek Literature. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor BAIN.

3. Prose Composition: elementary course, intended as supplementary to Greek 1. Open to students who are taking Greek 1 or 2. *Both terms, one hour.* Professor BAIN.

4. Lectures on Old Greek Life: History of Greek Art; textbook and lectures. Junior and Senior elective. *Both terms, two hours.* Professor BAIN.

5. Modern Greek: Rangabe's Handbook; Bikelas' Stories; Newspapers. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.

6. Homer: rapid reading of the entire Odyssey. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Œdipus Tyrannus; Æschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Junior and Senior elective. *Both terms, three hours.* Professor BAIN.

9. Demosthenes, three Philippics. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.

10. Thucydides, Book I. Junior and Senior elective. *Fall term, three hours.* Professor BAIN.

14A. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions. Junior and Senior elective; prerequisite, Greek 2. *Fall term, two hours.* Associate Professor BERNARD.

14B. The Greek New Testament: The Gospels; selections from the Epistles and Revelation; the principles of

textual criticism; sources of the Greek text with history of the text and versions. Junior and Senior elective; prerequisite, Greek 14A. *Spring term, two hours.* Associate Professor BERNARD.

15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Latin 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities. Lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Latin 16.

17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. Senior elective. *Spring term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

19. Indo-European Philology; introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Junior and Senior elective. *Both terms, two hours.* Associate Professor T. J. WILSON, JR.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Latin 13.

For courses 8, 11, 12, and 18, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, 3, and four hours of elective work.

DEPARTMENT OF HISTORY

KEMP PLUMMER BATTLE, A. M., LL. D., *Professor Emeritus of History.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

DANIEL HUGER BACOT, JR., A. M., *Instructor in History.*

1. American History: a general course covering the social, political, and economic development of the United States; text-books, lectures, and readings. Required of Freshmen in Groups 2 and 3. *Both terms, three hours.* Professors HAMILTON and WAGSTAFF, and Mr. BACOT.

2. Mediæval European History: a general course covering the period, 400-1648; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 4; to be omitted in 1913-1914.

3. English History: a general course; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor WAGSTAFF.

4. Modern European History: a general course covering the period, 1648-1900; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 2; to be given in 1913-1914.

5. The English Constitution and Government: a careful study of English constitutional development and the present government of the English people. Lectures, text-books, and readings. Junior and Senior elective. *Both terms, two hours.* Professor HAMILTON.

6. North Carolina History: a general study of the constitutional, political, and economic development of the State in the period since the Revolution; lectures, readings, and reports. Junior and Senior elective. *Spring term, two hours.* Professor HAMILTON.

To be omitted in 1913-1914.

7. The American Government and Constitution: a detailed study of the political customs and institutions of the American people; followed in the spring term by a careful study of the Constitution of the United States by means of cases. Text-books, lectures, and readings. Junior and Senior elective. Open also to Sophomores who have obtained a grade of 90 on History 1. *Both terms, three hours.* Professor HAMILTON.

8. Classical History: a general course dealing largely with the Greeks and Romans; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Mr. BACOT.

9. Spanish-American History 1492-1909: the course especially emphasizes the history of the leading Spanish-American countries from their revolutionary period to the present; lectures, text-books, and readings. Junior and Senior elective; open also to Sophomores. *Both terms, two hours.* Professor WAGSTAFF.

10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of Civil War and Reconstruction; lectures, readings, and reports. Senior elective. *Both terms, two hours.* Professor HAMILTON.

11. The Middle Period: a careful study of the leading movements in the United States from the adoption of the Constitution to 1850; lectures, readings, and reports. Junior and Senior elective. *Fall term, two hours.* Professor HAMILTON.

12A. The Protestant Revolt: a detailed study of the causes, progress, and results of the Protestant movement, with special attention to the lives, doctrines, and influence of Luther and Calvin; text-books, lectures, and readings. Junior and Senior elective. *Fall term, two hours.* Mr. BACOT.

To be omitted in 1913-1914.

12B. The French Revolution: a detailed study of the causes, progress and results of the Revolution; text-books,

lectures, and readings. Junior and Senior elective. *Spring term, two hours.* Mr. BACOT.

To be omitted in 1913-1914.

15. Modern Municipal Government: a course dealing with urban development and problems in Europe and the United States during the nineteenth century; lectures, readings, and discussion. Junior and Senior elective. *Both terms, two hours.* Mr. BACOT.

A certificate is granted to a student who has completed with credit fifteen hours in History.

For courses 13 and 14 see Graduate School.

DEPARTMENT OF LATIN

*GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

WARREN STONE GORDIS, Ph. D., *Acting Professor of Latin.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin, and Acting Head of the Department.*

GEORGE KENNETH GRANT HENRY, A. M., *Instructor in Latin.*

WILBUR HIGH ROYSTER, A. M., *Instructor in Latin.*

1. Cicero, De Senectute and De Amicitia; Livy, Book I; Horace, Odes and Epodes; sight reading. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor GORDIS, Associate Professor WILSON, and Messrs. HENRY and ROYSTER.

2. Plautus, Menæchmi; Terence, Phormio; Horace, Satires and Epistles; Tacitus, Agricola and Germania. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor GORDIS, Associate Professor WILSON, and Messrs. HENRY and ROYSTER.

3. Latin Prose Composition: based on Cicero and Livy; intended as supplementary to Latin 1. Open to students who are taking Latin 1 or 2. *Both terms, one hour.* Mr. HENRY.

* Absent on leave 1912-1913.

4. Latin Comedy: reading of selected plays of Plautus and Terence, with a study of the historical development of ancient comedy. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 5; to be given in 1913-1914.

5. Pliny, selected Letters; Juvenal Satires; Martial, selected Epigrams: reading with special reference to the private life of the Romans at the close of the first century A. D. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 9; to be omitted in 1913-1914.

6. Cicero: rapid reading of the philosophical works, De Officiis and Tusculan Disputations, and of the rhetorical works, Brutus and De Oratore. Junior and Senior elective. *Both terms, two hours.* Professor GORDIS.

This course alternates with course 4; to be omitted in 1913-1914.

7. Roman Political Institutions: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor HOWE.

This course alternates with course 7A; to be given in 1913-1914.

7A. The Private Life of the Romans: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor GORDIS.

This course alternates with course 7; to be omitted in 1913-1914.

8. History of Roman Literature: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Spring term, two hours.* Professor GORDIS.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Junior and Senior elective. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be given in 1913-1914.

10. A Course for Teachers: embracing pronunciation, prosody, the art of reading Latin, and a classification of

moods and tenses. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

13. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Lectures. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Greek 19.

14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts. Lectures and reports. Senior elective. *Fall term, two hours.* Professor GORDIS.

The attention of students electing this course is called to course 17 in the Department of Greek.

15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Greek 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities; lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Greek 16.

For courses 11 and 12, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and six hours of elective work.

DEPARTMENT OF MATHEMATICS

WILLIAM CAIN, A. M., *Professor of Mathematics.*

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

THEOPHILUS RANDOLPH EAGLES, JR., A. M., *Instructor in Mathematics.*

JOHN WAYNE LASLEY, JR., A. M., *Instructor in Mathematics.*

ALEXANDER MORSE ATKINSON, *Instructor in Drawing.*

WILLIAM WALKER RANKIN, JR., A. M., *Fellow in Mathematics.*

JASPER LOUIS PHILLIPS, *Assistant in Surveying.*

1. Algebra: from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. EAGLES and LASLEY.

2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professors CAIN and HENDERSON.

3. Surveying (Raymond) and Higher Surveying, Drawing. Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, three hours.* Professor STACY, Associate Professor HICKERSON, and Mr. PHILLIPS.

3A. Elementary Mechanics (Loney). Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, two hours.* Professor STACY.

3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell); lectures and

plates. Junior and Senior elective. *Both terms, two hours.* Mr. ATKINSON.

3C. Stereotomy: a course in the application of Descriptive Geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers, and culverts. A study of warped surfaces and drawings for the helicoidal arch. Senior elective; prerequisite, Mathematics 3B. *Spring term, two hours.* Mr. ATKINSON.

3D. Theory of Equations. Sophomore, Junior, and Senior elective; prerequisite, Mathematics 1. *Fall term, two hours.* Professor HENDERSON.

3E. Differential Equations: elementary course. Junior and Senior elective; prerequisite, fall term of Mathematics 4. *Spring term, two hours.* Professor HENDERSON.

4. Calculus, Analytic Mechanics. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.

5. Theory of Equations (Burnside and Panton). Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor HENDERSON.

6. Differential Equations (Murray). Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.

7. Road and Railroad Surveying and Engineering. Senior elective; prerequisite, Mathematics 3. *Both terms, two hours.* Professor STACY.

7A. Hydraulics and Sanitary Engineering. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.

8. Mechanics of Materials. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor CAIN.

10. Theory of Structures. Senior elective; prerequisite, Mathematics 4. *Both terms, four hours.* Associate Professor HICKERSON.

11. Retaining Walls and Dams, Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.

13. Design of Structures. Senior elective; may be taken in connection with Mathematics 8 and 10. *Spring term, four hours.* Associate Professor HICKERSON.

14. Brief Course in Strength of Materials and Stresses and Trusses. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, two hours.* Professor STACY.

16. Road Construction and Drainage, Road Location. Prerequisite Mathematics 3. Senior elective. *Both terms. two hours.* Associate Professor HICKERSON.

For additional courses, see Graduate School.

Drawing

1. Freehand and Mechanical Drawing: (*a*) Freehand drawing; sketching from dictation, sketching of geometrical figures, sketching from flat copy and from models; application of rules of perspective and light and shade. (*b*) Lettering: Freehand and mechanical lettering. (*c*) Mechanical drafting; the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing;* Reinhardt's *Freehand Lettering.* Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.

2. Mechanical and Topographical Drawing: (a) Mechanism and valve-gears, including the design of cams, gears. slide valves, etc.; dimensions and working drawings of machines from measurements. (*b*) Topography: topographical symbols, map drawing in pen and ink and colors. Text-books: Spooner's *Machine Drawing and Design* and Daniel's *Topographical*

Drawing. Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.

2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning; conventional representations; topographical drawing; conventional signs and plotting. Text-books: Anthony's *Machine Drawing;* Daniels' *Topographical Drawing.* Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.

3. Mechanical Drawing: machine drafting, work drawings; tracing and blue prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting-room systems and standards. Not counted for the degree; prerequisite, Drawing 1 and 2. *Both terms, two hours.* Mr. ATKINSON.

5. Advanced Freehand Drawing: charcoal and crayon, pen and ink, brush drawing: lectures. Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.

6. Theory of Perspective: lectures and plates. Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.

7. Structural Drafting: standard rolled sections, conventional riveting signs, standard connections, methods of framing and detailing structural work, beams, columns, plate girders, roof trusses, bridge details. Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

1. Psychology: lectures, with text-books. Junior and Senior elective. *Both terms, three hours.* Professor CHASE.

2. Logic: lectures, with text-books; the study of logic in life. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.

3. Ethics: criticism and discussions. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.

4. Philosophy: lectures; theses; a study of the forces that shape life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.

6. A Companion Course to Philosophy 4. The aim of the course is to sketch the forces masterful in modern life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.

For course 5, see Graduate School.

DEPARTMENT OF PHYSICS

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*

JOHN MADISON LABBERTON, *Assistant in Electrical Engineering.*

[For description of Physical Laboratories, see page 184].

A. Elementary Physics: lectures, with text-book, weekly written reviews, laboratory work. May be counted for entrance; open also to students in the Schools of Medicine and Pharmacy. *Both terms, three hours.* Messrs. CHRISLER and SCARBOROUGH.

Laboratory fee, $1.00 a term.

1. General Physics: lectures, with text-books; problems; laboratory work. Required of Sophomores in Group 3; elective in Groups 1 and 2; prerequisite, Mathematics 1. *Both terms, three hours. Professor* PATTERSON and Mr. CHRISLER.

Laboratory fee, $1.50 a term.

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electrical

nature of matter, radioactivity; lectures and recitations. Junior and Senior elective; prerequisite, Phyics 1. *Both terms, two hours.* Professor PATTERSON.

4. Study of Electricity and Magnetism: with laboratory work; Franklin and MacNutt's *Electricity and Magnetism.* Junior and Senior elective. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, $2.00 a term.

5. Descriptive Astronomy: a general course; lectures and recitations with use of lantern slides. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

6. Advanced Heat and Thermodynamics. Edser's *Heat for Advanced Students.* Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

10. The Elements of Electrical Engineering: an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Franklin and Esty's *Elements of Electrical Engineering,* Vols. I and II. Laboratory work one afternoon a week. Junior and Senior elective; prerequisite, a grade of 80 in Physics 1. (Spring term). *Both terms, three hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, $3.00 a term.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference-book: Steinmetz's *Alternating Current Phenomena.* Senior elective; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, $3.00 a term.

12A. Illuminating Engineering: theoretical and practical study of modern light sources. Wickenden's *Illumination and Photometry.* Senior elective; prerequisite, Phys-

ics 10. *Fall term, two hours.* Associate Professor DAGGETT.

12B. Electric Power Transmission: a study of the theory, construction, and operation of low and high tension circuits for the transmission of power. Lectures and problem work. Senior elective; prerequisite, Physics 11 (Fall term). *Spring term, two hours.* Associate Professor DAGGETT.

13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference-books: Hawkins and Wallis' *The Dynamo,* Hobart's *Dynamo Design,* Hobart and Ellis' *High Speed Dynamo Electric Machinery.* Senior elective; prerequisites, Physics 11 and 14. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Karapetoff's *Experimental Electrical Engineering,* Vols. I and II. Senior elective; prerequisite, Physics 10. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, $5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps, and other boiler room accessories; steam engines, valves, and valve-gears; steam turbines; gas and oil engines, gas producers. Lectures, problems, and laboratory work in the University Power Station; Allen and Bursley's *Heat Engines.* Junior elective; prerequisites, Drawing 1 and Physics 1. *Both terms, two hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, $2.50 a term.

For courses for graduate students, see Graduate School.

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*

OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*

EUGENE FRED PARKER, A. M., *Instructor in the Romance Languages.*

French

A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.

1. Continuation of Course A: grammar; composition; reading of modern French literature. Required of Freshmen in Group 3; elective in Group 2; Sophomore elective. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.

2. Advanced Course: studies in reading and writing French, and in pronunciation; French phonetics. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, French 1. *Both terms, three hours.* Professor DEY.

3. French Literature: a general outline of its various periods. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 2. *Both terms, three hours.* Associate Professor TOWLES.

4A. French Literature in the Seventeenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Associate Professor TOWLES.

This course alternates with course 4B; to be omitted in 1913-1914.

4B. French Literature in the Eighteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequi-

site, French 3. *Both terms, three hours.* Professor DEY.

This course alternates with course 4A; to be given in 1913-1914.

5. French Literature in the Nineteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Professor DEY.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

For courses for graduate students, see Graduate School.

Spanish

1. Elementary Course; grammar; pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.* Professor DEY.

2. Second Year Course: wide reading of representative writers of the eighteenth and nineteenth centuries; grammar; composition based on selected texts. Junior and Senior elective; prerequisite, Spanish 1. *Both terms, three hours.* Professor DEY.

3. Spanish Literature in the Sixteenth and Seventeenth Centuries: Cervantes, Lope de Vega, Calderon. Junior and Senior elective; prerequisite, Spanish 2. *Both terms, two hours.* Professor DEY.

Italian

1. Elementary Course: grammar, pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. Prerequisite, French 1. *Both terms, three hours.* Associate Professor TOWLES.

DEPARTMENT OF ZOOLOGY

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

[For description of Biological Laboratories, see page 187].

1. Elements of Zoology: an introductory course giving an outline of the classification and structure of animals,

fundamentals of histology, embryology, and physiology with some consideration of biological theories. Lectures with laboratory work. Sophomore, Junior, and Senior elective, and open to First Year Medical students. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

2. Comparative Anatomy and Embryology of the Vertebrates: dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. BROWNSON.

3. General Zoology: an advanced course for such as expect to teach or to carry on investigations in zoological, or allied medical, subjects. Laboratory work to cover anatomy, with some histology and embryology, of chief orders of animals, especially invertebrates: collecting trips: identification of forms: essentials of gross and microscopic photography: microscopic technique supplementary to that of the usual courses in embryology and histology. Conferences and lectures dealing with morphology of groups, history of zoology, and the theories of biology as deduced from facts of comparative and experimental study. Junior and Senior elective. *Both terms, five hours.* Professor WILSON.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and Botany 1.

School of Applied Science

FACULTY

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.
Andrew Henry Patterson, A. M., Dean.

William Cain, A. M., *Professor of Mathematics.*
Collier Cobb, A. M., *Professor of Geology and Mineralogy.*
Joseph Hyde Pratt, Ph. D., *Professor of Economic Geology.*
Charles Holmes Herty, Ph. D., *Professor of General and Industrial Chemistry.*
Archibald Henderson, Ph. D., *Professor of Pure Mathematics.*
Andrew Henry Patterson, A. M., *Professor of Physics.*
Marvin Hendrix Stacy, A. M., *Professor of Civil Engineering.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
Thomas Felix Hickerson, A. M., S. B., *Associate Professor of Civil Engineering.*
Parker Hayward Daggett, S. B., *Associate Professor of Electrical Engineering.*
James Munsie Bell, Ph. D., *Associate Professor of Physical Chemistry.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Theophilus Randolph Eagles, Jr., A. M., *Instructor in Mathematics.*
John Eliphalet Smith, B. S., *Instructor in Geology.*
John Wayne Lasley, Jr., A. M., *Instructor in Mathematics.*
Alexander Morse Atkinson, *Instructor in Drawing.*
Charles Scott Venable, A. M., *Instructor in Chemistry.*
James Talmage Dobbins, A.M., *LeDoux Fellow in Chemistry.*

William Lewis Jeffries, A. M., *Toch Fellow in Chemistry.*

Burke Haywood Knight, A. B., *Fellow in Technical Chemistry.*

Lucius Eugene Stacy, Jr., A. B., *Fellow in Organic Chemistry.*

Paul Roby Bryan, *Assistant in Chemistry.*

Carnie Blake Carter, *Assistant in Chemistry.*

Frank Davies Conroy, *Assistant in Chemistry.*

Clarence Ballew Hoke, *Assistant in Chemistry.*

Jackson Townsend, *Assistant in Chemistry.*

John Madison Labberton, *Assistant in Electrical Engineering.*

Robert Campbell Jurney, *Assistant in Geology.*

James Blaine Scarborough, *Assistant in Physics.*

Jasper Louis Phillips, *Assistant in Surveying.*

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science, the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, II, III, IV, and V. Each course combines instruction in certain sciences and their application to the arts with certain other general studies deemed essential to a liberal education. These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are five in number; course IIIA is a special course.

I. Bachelor of Science in Chemical Engineering.
II. Bachelor of Science in Electrical Engineering.
III. Bachelor of Science in Civil Engineering.
IIIA. Road Engineering.
IV. Bachelor of Science in Medicine.
V. Bachelor of Science in Soil Investigation.

ADMISSION

Candidates for admission to the School of Applied Science must present 14 units for unconditional entrance. A complete list of these units and the requirements in each subject will be found on pp. 32-38 of the general catalogue.

The specific requirements are as follows:

English *a, b, c,*	3. units
History *a* or *b,*	2. units
Mathematics *a, b, c,*	3. units
French *a* or German *a,*	2. units
Science	1. unit
Elective,	3. units

At least twelve units must be offered at entrance.

I. BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

FRESHMAN YEAR

English 1, Composition	*(3)
Mathematics 1, Advanced Algebra and Trigonometry	(4)
German 1, Translation and Composition	(3)
Chemistry 1, General Chemistry	(3)
Drawing 1, Freehand and Mechanical	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature	(3)
Mathematics 2, Analytics and Calculus	(3)
Chemistry 3, Qualitative Analysis	(2)
Chemistry 4, Quantitative Analysis	(3)
Physics 1, General Course	(3)
Drawing 2A, Mechanical and Topographical	(2)

JUNIOR YEAR

Chemistry 16, Inorganic Chemistry, advanced	(1½)
Chemistry 2, Technical Chemistry	(3)
Chemistry 17, Quantitative Analysis, advanced	(3)
Chemistry 5, Organic Chemistry, advanced	(3)
Chemistry 7, Elementary Physical Chemistry	(3)
Geology 1, General Course	(3)
Physics 15, Steam Machinery (fall term)	(1)

* Numerals in parentheses indicate the number of hours a week.

SENIOR YEAR

Chemistry 6, Theories of Chemistry..... (1)
Chemistry 5A, Organic Chemistry..... (2)
Select one { Chemistry 7A, Physical Chemistry, advanced.. (2) / Chemistry 7B, Electro-Chemistry..... (2)
Chemistry 18, Research..... (5)
Physics 10, Electric Machinery..... (3)
Physics 6, Thermodynamics (fall term)..... (1)
Geology 2, Mineralogy ..... (3)

II. BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

FRESHMAN YEAR

English 1, Composition..... (3)
Mathematics 1, Advanced Algebra and Trigonometry... (4)
Select one { German 1, Composition and Translation..... (3) / French 1, Composition and Translation..... (3)
Chemistry 1, General Course..... (3)
Drawing 1, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 2A, Composition and Literature..... (3)
Mathematics 2, Analytics and Calculus..... (3)
Select one { German 2B, Translation and Literature..... (3) / French 2, Composition and Translation..... (3) / Spanish 1, Grammar and Translation..... (3)
Physics 1, General Course..... (3)
Physics 4, Electricity and Magnetism..... (2)
Chemistry 3A, Qualitative Analysis.....(1½)
Chemistry 4A, Quantitative Analysis..... (1)

JUNIOR YEAR

Mathematics 3, Surveying..... (2)
Mathematics 3B, Descriptive Geometry..... (2)
Mathematics 4, Calculus and Mechanics..... (3)
Physics 6, Thermodynamics ..... (2)
Physics 10, Electric Machinery..... (3)
Physics 15, Steam Machinery..... (2)
Drawing 3, Mechanical, and Machine Design..... (2)

SENIOR YEAR

Physics 11, Alternating Currents, (Advanced)..... (4)
Physics 12A, Illuminating Engineering..... (1)
Physics 12B, Electric Power Transmission..... (1)
Physics 13B, Electrical Design..... (1)
Physics 14, Electrical Engineering, Laboratory..... (3)
Chemistry 7B, Electro-Chemistry..... (2)
Mathematics 7A, Hydraulics..... (3)

III. BACHELOR OF SCIENCE IN CIVIL ENGINEERING

FRESHMAN YEAR

English 1, Composition..... (3)
Mathematics 1, Advanced Algebra and Trigonometry... (4)
Select one { French 1, Composition and Translation..... (3) / German 1, Composition and Translation..... (3)
Chemistry 1, General Course..... (3)
Drawing 1, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 2A, Composition and Literature..... (3)
Mathematics 2, Analytics and Calculus..... (3)
Mathematics 3, Surveying..... (2)
Mathematics 3A, Elementary Mechanics..... (2)
Physics 1, General Course..... (3)
Geology 1, General Course..... (3)
Drawing 2A, Mechanical and Topographical..... (2)

JUNIOR YEAR

Mathematics 3B, Descriptive Geometry..... (2)
Mathematics 4, Calculus and Analytical Mechanics.... (3)
Mathematics 7, Road and Railroad Surveying and Engineering ..... (3)
Mathematics 16, Road Construction, Drainage, and Location ..... (2)
Geology 8A, Soil Surveying and Rocks for Road Construction ..... (1)
Drawing 2, Mechanical and Topographical..... (2)
Physics 10, Electrical Machinery..... (3)

SENIOR YEAR

Mathematics 7A, Hydraulics and Sanitary Engineering. (3)
Mathematics 11, Retaining Walls and Dams; Arches.... (2)
Mathematics 8, Mechanics of Materials..... (3)
Mathematics 10, Theory of Structures..... (4)
Mathematics 13, Design of Structures..... (3)

IIIA. ROAD ENGINEERING

FRESHMAN YEAR

English 1, Composition..... (3)
Mathematics 1, Advanced Algebra and Trigonometry... (4)
Select { German 1, Translation and Composition..... (3)
one { French 1, Translation and Composition..... (3)
Chemistry 1, General Course..... (3)
Drawing 1, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 2A, Composition and Literature..... (3)
Mathematics 2, Analytics and Calculus..... (3)
Mathematics 3, Surveying..... (2)
Mathematics 3A, Mechanics..... (2)
Physics 1, General Course..... (3)
Drawing 2A, Mechanical and Topographical..... (2)
Geology 1, General Course..... (3)

JUNIOR YEAR

Mathematics 4, Calculus and Analytical Mechanics..... (3)
Mathematics 7, Road and Railroad Surveying and Engineering ..... (3)
Mathematics 14, Brief Course in Strength of Materials and Stresses in Trusses..... (2)
Mathematics 16, Road Construction, Drainage, and Location ..... (2)
Road Management, Building Model Roads..... (1)
Geology 8A, Soil Surveying and Rocks for Road Construction ..... (1)
Drawing 2, Mechanical and Topographical..... (2)

IV. BACHELOR OF SCIENCE IN MEDICINE

FRESHMAN YEAR

English 1, Composition ..... (3)
Mathematics 1, Advanced Algebra and Trigonometry ... (4)
Chemistry 1, General Course ..... (3)
Botany 1, General Course ..... (3)
Select one:
- German 1, Composition and Translation ..... (3)
- French 1, Composition and Translation ..... (3)
- Latin 1, Grammar and Translation ..... (4)

SOPHOMORE YEAR

English 2, Composition and Literature ..... (3)
Physics 1, General Course ..... (3)
Zoology 1, General Course ..... (3)
Chemistry 3A, Qualitative Analysis ..... (1½)
Chemistry 4A, Quantitative Analysis ..... (1)
Select one:
- German 1 or 2 ..... (3)
- French 1 or 2 ..... (3)
- Latin 1 ..... (4)
- Latin 2 ..... (3)

Select one:
- Drawing 1, Freehand and Mechanical ..... (2)
- History 1, American ..... (3)

JUNIOR YEAR*

Organic Chemistry, fall term ..... (6)
Toxicology, spring term ..... (6)
Comparative Anatomy, fall term ..... (6)
Human Anatomy ..... (10)
Histology, fall term ..... (9)
Embryology, spring term ..... (6)
Pharmacy, spring term ..... (6)

SENIOR YEAR

Human Anatomy, fall term ..... (9)
Neuro-Anatomy, fall term ..... (6)
Bacteriology, fall term ..... (9)
Physiology ..... (7½)
Physiological Chemistry, fall term ..... (6)

* The Junior and Senior courses are given in the School of Medicine, where descriptions of courses may be found.

Pathology, spring term..... (9)
Pharmacology, spring term..... (10)
Minor Surgery, spring term..... (4)

V. BACHELOR OF SCIENCE IN SOIL INVESTIGATION

FRESHMAN YEAR

English 1, Composition..... (3)
Mathematics 1, Advanced Algebra and Trignometry... (4)
German 1, Translation and Composition..... (3)
Chemistry 1, General Course..... (3)
Drawing 1, Freehand and Mechanical..... (2)

SOPHOMORE YEAR

English 2A, Composition and Literature..... (3)
Mathematics 3, Surveying ..... (2)
Chemistry 3, Qualitative Analysis..... (2)
Geology 1, General Course..... (3)
Physics 1, General Course..... (3)
Drawing 2, Mechanical and Topographical..... (2)

JUNIOR YEAR

Chemistry 4, Quantitative Analysis..... (3)
Geology 2, Mineralogy..... (3)
Botany 1, General Course..... (3)
Chemistry 2, Technical..... (3)
French 1, Composition and Translation..... (3)

SENIOR YEAR

Geology 6, Research ..... (3)
Geology 7, Advanced Physiography..... (3)
Geology 8, Origin and Nature of Soils..... (2)
Chemistry 8, Advanced Quantitative Analysis and Research ..... (5)
Soils of the United States..... (1½)
Mapping ..... (2)

Courses of Instruction

Only those scientific and language courses which are specifically required in the School of Applied Science are repeated here. For complete description of other courses, see page 43.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 185.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Freshmen. *Both terms, three hours.* Professor Herty and Messrs. Venable and Carter.

Laboratory fee, $1.25 a term.

2. Technical Chemistry: (*a*) Industrial and Agricultural Chemistry: glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (*b*) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Required of Juniors in Courses I and V; prerequisite, Chemistry 1. *Both terms, three hours.* Professor Herty.

3. Qualitative Analysis: laboratory work with lectures. Required of Sophomores in Courses I, and V. *Both terms, two hours.* Professor Wheeler and Mr. Hoke.

Laboratory fee, $5.00 a term.

3A. Qualitative Analysis. The behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures. Laboratory work with lectures. Required of Sophomores in courses II and IV. *Fall term, three hours.* Professor Wheeler and Mr. Hoke.

Laboratory fee, $7.50.

4. Quantitive Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical

methods. Required of Sophomores in Course I, and of Juniors in Course V; prerequisite, Chemistry 1. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, $5.00 a term.

4A. Quantitative Analysis: a brief course in gravimetric methods, followed by a more extended course in volumetric methods. Required of Sophomores in courses II and IV. *Spring term, two hours.* Associate Professor BELL.

Laboratory fee, $4.00.

5. Organic Chemistry. Required of Juniors in Course 1; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, $4.00 a term.

5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic substances. Required of Seniors in Course 1. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, $6.00 a term.

6. The History of Chemistry. Required of Seniors in Course I; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.* President VENABLE.

7. Elementary Physical Chemistry. Required of Juniors in Course I; prerequisite, Chemistry 1, 3 and 4. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, $2.00 a term.

7A. Physical Chemistry: lectures and text-books, with laboratory work. Senior elective in Course I; prerequisite, Chemistry 7. *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, $2.00 a term.

7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective in Course I, required of Seniors in Course II; prerequisite, Chemistry 1, 3, (or 3A) and 4 (or 4A). *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, $2.00 a term.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds; lectures and text-book. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Spring term, three hours.* Professor HERTY.

17. Quantitative Analysis: laboratory work; extension of course 4 along technical lines. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Professor HERTY.

Laboratory fee, $5.00 a term.

18. Research. Required of Seniors in Course I; prerequisite, Chemistry 1, 3, 4, 5, 7, and 17. *Both terms, five hours.* Professors HERTY and WHEELER and Associate Professor BELL.

Laboratory fee, $10.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

DEPARTMENT OF ENGLISH

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.* Professors ROYSTER and CROSS, Associate Professor BOOKER, and Mr. SNEATH.

2A. Technical Composition for Engineers. First term: a study of the forms of scientific writing—description, exposition, directions—with the aim of developing clearness, accuracy, and logical thinking. Preparation and criticism of daily and weekly themes, and reading of illustrative literature from engineering magazines. Text-book: S. C. Earle's *Theory and Practice of Technical Writing.* Second term: History of English Literature. Required of Sophomores in Courses

I, II, III, IIIA, and V. *Both terms, three hours.* Mr. SNEATH.

DEPARTMENT OF GEOLOGY AND MINERALOGY

[For description of Geological Laboratories, see page 188.]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Required of Sophomores in Courses II, III, and V, and of Juniors in Course I. *Both terms, three hours.* Professor COBB, and Mr. JURNEY.

Laboratory fee, $3.00 for the spring term.

2. Mineralogy: lectures with laboratory and field work; Lewis's *Tables* and Dana's *Manual of Mineralogy.* Required of Juniors in Course V, and of Seniors in Course I. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $5.00 a term.

4. Economic Geology: ore deposits and economic minerals; lectures with laboratory and field work. Prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $1.00 a term.

6. Advanced Field Work and special research in Geology or Geography: problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

8. Origin and Nature of Soils: field work, laboratory and theses. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. *Both terms, two hours.* Professor COBB.

Laboratory fee, $3.00 a term.

8A. Soils and Stones for Road Making: field work, laboratory work. Required of Juniors in Courses III and IIIA; prerequisite, Geology 1. *Both terms, one hour.* Mr. SMITH.

Laboratory fee, $1.00 a term.

10. Soils of the United States: an introductory study of the chief soil provinces, soil series, and soil areas of the United States, with special reference to the soils of North Carolina. Required of Seniors in Course V. *Spring term, two hours.* Professor COBB and Dr. COFFEY.

10A. Soil Mapping: preparation of large scale soil maps of the Chapel Hill region. Required of Seniors in Course V. *Both terms, two hours.*. Professor COBB and Dr. COFFEY.

11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work. *Twenty-four lectures (spring term).* Professor PRATT.

12. Advanced Work in Mineralogy. *One hour.* Professor PRATT.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

DEPARTMENT OF GERMANIC LANGUAGES

A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Mr. HENDERSON.

1. Translation, Sight Reading, Composition, Grammar: required of Freshmen in Courses I and V; elective in Courses II, III, IIIA, IV. *Both terms, three hours.* Professor TOY and Associate Professor BROWN.

2B. History of German Literature in the Nineteenth Century after 1832: rapid reading from representative authors, with parallel lectures. Sophomore elective in Course II; prerequisite, German I. *Both terms, three hours.* Associate Professor BROWN.

DEPARTMENT OF MATHEMATICS

1. Algebra, from Quadratics through Theory of Equations (Fine's *College Algebra)*; Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. EAGLES and LASLEY.

2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores. *Both terms, three hours.* Professors CAIN and HENDERSON.

3. (*a*) Surveying (Raymond), and (*b*) Higher Surveying. Required of Sophomores in Courses III, IIIA, and V, and of Juniors in Course II. *Both terms, two hours.* Professor STACY, Associate Professor HICKERSON, and Mr. PHILLIPS.

3A. Elementary Mechanics (Loney). Required of Sophomores in Courses III and IIIA. *Both terms, two hours.* Professor STACY.

3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell). Required of Juniors in Courses II and III. *Both terms, two hours.* Mr. ATKINSON.

4. Calculus, Analytic Mechanics. Required of Juniors in Courses II, III, IIIA; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.

7. Railroad Surveying and Railroad Engineering. Required of Juniors in Courses III and IIIA; prerequisite, Mathematics 3. *Both terms, three hours.* Professor STACY.

7A. Hydraulics and Sanitary Engineering. Required of Seniors in Courses II and III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.

8. Mechanics of Materials. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor CAIN.

10. Theory of Structures. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, four hours.* Associate Professor HICKERSON.

11. Retaining Walls and Dams; Arches. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.

13. Design of Structures. Required of Seniors in Course III; may be taken in connection with Mathematics 8 and 10. *Both terms, three hours.* Associate Professor HICKERSON.

14. Brief Course in Strength of Materials and Stresses in Trusses. Required of Juniors in Course IIIA; prerequisite, Mathematics 4. *Both terms, two hours.* Professor STACY.

16. Road Construction and Drainage; Road Location. Required of Juniors in Courses III and IIIA. *Both terms, two hours.* Associate Professor HICKERSON.

Drawing

1. Freehand and Mechanical Drawing: (*a*) Freehand drawing: sketching from dictation, sketching of geometrical figures, sketching from flat copy and from models; application of rules of perspective and light and shade. (*b*) Lettering: freehand and mechanical lettering. (*c*) Mechanical drafting: the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing,* Reinhardt's *Free Lettering.* Required of Freshmen. *Both terms, two hours.* Mr. ATKINSON.

2. Mechanical and Topographical Drawing: (*a*) Mechanism and valve-gears, including the design of cams, gear-teeth, slide-valves, etc.; dimensioned working

drawings of machines from measurements. (*b*) Topography: topographical symbols, map drawing in pen and ink and colors. Text-books: Spooner's *Machine Drawing and Design* and Daniels' *Topographical Drawing.* Required of Sophomores in Course V and of Juniors in Courses III and IIIA. *Both terms, two hours.* Mr. ATKINSON.

2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning, conventional representations. Topographical drawing: conventional signs and plotting. Text-books: Anthony's *Machine Drawing,* Daniels' *Topographical Drawing.* Required of Sophomores in Courses I, III, and IIIA. *Both terms, two hours.* Mr. ATKINSON.

3. Mechanical Drawing: machine drafting, work drawings; tracing and blue-prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting room systems and standards. Required of Juniors in Course II; prerequisite, Drawing 1 and 2. *Both terms, two hours.* Mr. ATKINSON.

DEPARTMENT OF PHYSICS

[For description of Physical Laboratories, see page 184.]

1. General Physics: lectures, with text-book; problems; laboratory work. Required of Sophomores; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON and Mr. CHRISLER.

Laboratory fee, $1.50 a term.

4. Study of Electricity and Magnetism, with Laboratory Work: Franklin and MacNutt's *Electricity and Magnetism.* Required of Sophomores in Course II. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, $2.00 a term.

6. Advanced Heat and Thermodynamics. Text-book Edser's *Heat for Advanced Students.* Required of Juniors in Course II, and of Seniors in Course I;

prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

10. The Elements of Electrical Engineering: an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Franklin and Esty's *Elements of Electrical Engineering,* Vols. I and II. Laboratory work one afternoon a week. Required of Juniors in Courses II and III, and of Seniors in Course I; prerequisite, a grade of 80 in Physics 1 (spring term). *Both terms, three hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, $3.00 a term.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference book: Steinmetz's *Alternating Current Phenomena.* Required of Seniors in Course II; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, $3.00 a term.

12A. Illuminating Engineering: theoretical and practical study of modern light sources. Wickenden's *Illumination and Photometry.* Required of Seniors in Course II; prerequisite, Physics 10. *Fall term, two hours.* Associate Professor DAGGETT.

12B. Electric Power Transmission: a study of the theory, construction, and operation of low and high tension circuits for the transmission of power. Lectures and problem work. Required of Seniors in Course II; prerequisite, fall term of Physics 11. *Spring term, two hours.* Associate Professor DAGGETT.

13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference books: Hawkins and Wallis' *The Dynamo,* Hobart's *Dynamo Design,* Hobart and Ellis' *High Speed Dynamo Electric Machinery.* Required of Seniors in Course II; prerequisite, Physics 11 and 14, which may be taken

in the same year with 13B. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments; testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Karapetoff's *Experimental Electrical Engineering.* Required of Seniors in Course II; prerequisite, Physics 10. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, $5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps and other boiler room accessories; steam engines, valves and valve gears; steam turbines; gas and oil engines, gas producers. Lectures, problems, and laboratory work in the University Power Station. Allen and Bursley's *Heat Engines.* Required of Juniors in Course II; prerequisite, Drawing 1 and Physics 1. *Both terms, two hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, $2.50 a term.

DEPARTMENT OF ROMANCE LANGUAGES

French

A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.

1. Continuation of Course A: grammar; composition; reading of modern French literature. Freshmen elective in Courses II, III, IIIA, and IV. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.

2. Advanced Course: studies in reading and writing French, and in pronunciation. French phonetics. Sophomore elective in Courses II and IV; prerequisite, French 1. *Both terms, three hours.* Professor DEY.

Spanish

1. Elementary Course: grammar; pronunciation; oral and written exercises; translation and reading at sight. Sophomore elective in Course II. *Both terms, three hours.* Professor DEY.

The Graduate School

COMMITTEE

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.
Charles Lee Raper, Ph. D., Dean.
Edward Kidder Graham, A. M.
Harry Woodburn Chase, Ph. D.

FACULTY

Walter Dallam Toy, M. A., *Professor of the Germanic Languages and Literatures.*

William Cain, A. M., *Professor of Mathematics.*

Henry Horace Williams, A. M., B. D., *Professor of Philosophy.*

Henry Van Peters Wilson, Ph. D., *Professor of Zoology.*

Collier Cobb, A. M., *Professor of Geology and Mineralogy.*

Marcus Cicero Stephens Noble, *Professor of Pedagogy.*

*George Howe, Ph. D., *Professor of the Latin Language and Literature.*

Charles Holmes Herty, Ph. D., *Professor of General and Industrial Chemistry.*

Charles Lee Raper, Ph. D., *Professor of Economics.*

William Chambers Coker, Ph. D., *Professor of Botany.*

Archibald Henderson, Ph. D., *Professor of Pure Mathematics.*

Joseph Gregoire deRoulhac Hamilton, Ph. D., *Alumni Professor of History.*

Andrew Henry Patterson, A. M., *Professor of Physics.*

Henry McGilbert Wagstaff, Ph. D., *Professor of History.*

William Morton Dey, Ph D., *Professor of the Romance Languages and Literatures.*

Marvin Hendrix Stacy, A. M., *Professor of Civil Engineering.*

James Finch Royster, Ph. D., *Professor of English.*

* Absent on leave 1912-1913.

CHARLES WESLEY BAIN, M. A., *Professor of Greek.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

TOM PEETE CROSS, Ph. D., *Professor of English.*

WARREN STONE GORDIS, Ph. D., *Acting Professor of Latin.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*

THOMAS FELIX HICKERSON, A. M., S. B., *Associate Professor of Civil Engineering.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

KENT JAMES BROWN, Ph. D., *Associate Professor of German.*

JOHN ELIPHALET SMITH, B. S., *Instructor in Geology.*

ALEXANDER MORSE ATKINSON, *Instructor in Drawing.*

WILLIAM BATTLE COBB, A. B., *Assistant in Botany.*

ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

CANDIDATES FOR GRADUATE WORK

Graduates of the University of North Carolina and of other universities and colleges of good standing are, upon application to the President or Dean, ordinarily admitted to advanced courses of instruction free of charge for tuition. There is, however, a registration fee of twelve dollars and a half for each term. An applicant for admission, unless a graduate of the University of North Carolina, is required to present his diploma and a certificate of scholarship and character. If in any department the preliminary training of candidates has not been sufficient to qualify them for strictly graduate work, they will be required to take such undergraduate courses as may be

prescribed by the head of the department; but these courses will not be counted for hours in work leading to a graduate degree.

Students who are not graduates may, if they prove themselves qualified, take graduate courses; but no graduate degree will be given to a student who does not already hold a Bachelor's degree from some institution of approved standing.

All courses must be approved by the President or Dean.

DEGREES

The University offers to graduate students advanced work leading to the degrees of Master of Arts (A. M.), Master of Science (S. M.), and Doctor of Philosophy (Ph. D.).

MASTER OF ARTS

Candidates for the degree of Master of Arts must complete satisfactorily one year of study consisting of at least fifteen hours a week of recitations or lectures, eight hours of which must be taken from courses in the Graduate Department, the remaining seven from courses in the graduate department or from undergraduate courses open only to Juniors and Seniors. The candidate shall select one major subject and two minor subjects. The course as a whole must have unity and must be pursued with definite aim.

A thesis based on the major subject of study and showing capacity for original research must be submitted on or before May 1 of the given year, and must be filed in typewritten form on or before May 15.

MASTER OF SCIENCE

The degree of Master of Science is conferred in the School of Applied Science under the conditions similar to those stated above for the degree of Master of Arts.

DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy is required to pursue, in residence at the University, a prescribed course of advanced study and research in one major subject and two allied minor subjects. In general a term of three years is required, but the degree may be secured in two years

in the case of exceptional preliminary training in the major subject.

These requirements of residence and study are, however, entirely secondary. The degree is conferred not simply for faithful study in a determinate field of work for a prescribed period, but because of a high attainment in a special branch of learning, which the candidate must have manifested not only in examination, but by a thesis wihch gives evidence of independent research and contributes to knowledge. The candidate should choose his major subject in a department in which he has already pursued, for a considerable period, a systematic course of study. To receive this degree, a knowledge of French and German will be found indespensible in most instances. The thesis must be accepted before the candidate may be admitted to examination. The examinations are both written and oral. They demand a minute knowledge of a special field of work as well as a general acquaintance with the department of learning in which the candidate offers himself for the degree.

Courses of Instruction

DEPARTMENT OF BOTANY

[For description of Biological Laboratories, see page 187].

2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Open to Juniors and Seniors. *Both terms, three hours.* Professor Coker and Mr. Cobb.

3. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Open to Juniors and Seniors. *Both terms, three hours.* Professor Coker and Mr. Cobb.

4. Plant Morphology: advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. *Both terms, five hours or more.* Professor Coker.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 185.]

11. Research in Inorganic, Analytical, and Industrial Chemistry. This course (with 12 and 13) is intended only for applicants for the degree of Doctor of Philosophy or properly equipped students who desire special training in advanced chemical research. It requires, in addition to the laboratory work, daily conference with the professor and continual reference to the literature touching the matter under investigation. The work is usually assigned by the professor, but by special permission the student may elect to work upon problems to which he wishes to give particular attention. *Both terms, six hours.* Professor Herty.

Laboratory fee, $12.50 a term.

12. Research in Organic Chemistry. The statements made in regard to course 11 apply also to this course. *Both terms, six hours.* Professor WHEELER.

Laboratory fee, $12.50 a term.

13. Research in Physical Chemistry. *Both terms, six hours.* Associate Professor BELL.

Laboratory fee, $12.50 a term.

14. Advanced Inorganic Chemistry. The elements are studied with the idea of showing the fundamental laws of Chemistry and the deep-seated relations involved in and leading up to the Periodic System. Attention is also given to those portions of Inorganic Chemistry not usually dwelt upon in the regular courses. The applications of Physico-chemical laws and generalizations are emphasized throughout the course. *Both terms, two hours.* Professor HERTY.

15. Advanced Organic Chemistry: Seminar Course: readings and discussions; a study of class reactions with reference to their application to organic research is taken up, and special attention is given to the most important modern investigation. *Both terms, two hours.* Professor WHEELER.

The *Journal Club* meets fortnightly. The current journals, American, English, German, and French, purely scientific and technical, are reviewed by the students and instructors. Attendance upon the meetings of the Club is expected of all students taking the above courses.

DEPARTMENT OF ECONOMICS

2. Public Finance: a general study of the principles which are involved in the revenues and expenditures of the State, and in the relation of the State to the industries of its citizens; a special study of taxation and the tariff; lectures, readings, and reports; Adams' *The Science of Finance.* Open to Seniors. *Both terms, two hours.* Professor RAPER.

Given in alternate years; to be omitted in 1913-1914.

3. Economic Institutions and Thought in England and the United States; a general study, largely from the his-

torical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism; lectures, readings, and reports; Cheyney's *Industrial and Social History of England,* Brooks' *The Social Unrest,* Spargo's *Socialism,* and the *Communist Manifesto* (Marx and Engels). Open to Seniors. *Both terms, two hours.* Professor RAPER.

DEPARTMENT OF EDUCATION

12. The Philosophy of Education: a discussion of the underlying principles shaping educational systems, past and present. Seminar course; readings, theses, discussions. *Both terms, two hours.* Professor CHASE.

13. American Education: a study of the development of the school systems in the United States, with a comparative study of the principal European systems; research and lectures. *Both terms, two hours.* Professors NOBLE and CHASE.

DEPARTMENT OF ENGLISH

Candidates for the degree of Doctor of Philosophy who elect advanced work in the English language as their major subject will be expected to take one or more courses in other Germanic languages. All graduate work in the English languages presupposes English 6, or its equivalent, and a reading knowledge of German; but, in exceptional cases, English 6 and German A may be taken along with the English graduate courses.

6. Introductory Course in Old and Middle English: in the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo-Saxon Reader.* In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer;* Emerson's *Middle English Reader.* The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the

older periods is considered in its relations to present day English; many points of confusion in modern English, unexplained by the rules of logical grammar, are made clear. Open to Juniors and Seniors. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Latin Department.

7. Advanced Course in Old English and Middle English: the work of the first term continues the study of Old English grammar, particularly in its relations to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf;* Blackburn's *Exodus and Daniel.* A study of Chaucer's minor poems will be the basis of the work of the second term, 1914; prerequisite, English 6, or its equivalent. Open to Seniors. *Both terms, two hours.* Professor ROYSTER.

8. History of the English Language: This course supplements English 6. It will trace the growth of the English language from its beginnings in England until today. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

DEPARTMENT OF GEOLOGY

[For description of Geological Laboratories, see page 188.]

5. Petrography: lectures, laboratory work, and theses. Open to Juniors and Seniors. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, $2.00 a term.

6. Advanced Field Work and Special Research in Geology and Geography: problems assigned individually and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Open to Seniors. *Both terms, three hours.* Professor COBB.

9. Research Course in Historical Geology. *Both terms, three hours.* Professor COBB.

DEPARTMENT OF GERMANIC LANGUAGES

3. History of German Literature: lectures with parallel reading and written reports. Prerequisite, German 2A or 2B. Open to Juniors and Seniors. *Both terms, two hours.* Professor Toy.

4. Middle High German: Paul's *Mittelhochdeutsche Grammatik;* Bachmann's *Mittelhochdeutsches Lesebuch;* translation into New High German. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor Brown.

This course alternates with course 5; to be omitted in 1913-1914.

5. Old High German: Braune's *Althochdeutsche Grammatik;* Braune's *Althochdeutsches Lesebuch.* Open to Juniors and Seniors. *Both terms, two hours.* Associate Professor Brown.

This course alternates with course 4; to be given in 1913-1914.

6. Gothic: Braune's *Gotische Grammatik;* selected parts of Paul's *Grundriss der Germanischen Philologie.* This course is intended to lay the foundation for the philological study of the German dialects. Open to Juniors and Seniors. *Both terms, three hours.* Professor Toy.

7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. In connection with the interpretation of the texts, the life of Goethe will be studied. Selected chapters of Scherer's *History of German Literature,* Francke's *History of German Literature,* and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Open to Juniors and Seniors: prerequisite, German 2A or 2B or 3. *Both terms, two hours.* Associate Professor Brown.

This course may be elected only after consultation with the instructor.

7B. Goethe's Faust, Parts I and II. Open to Juniors and Seniors: prerequisite, German 2A or 2B or 3. *Both terms, two hours.* Professor Toy.

This course may be elected only after consultation with the instructor.

DEPARTMENT OF GREEK

7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Œdipus Tyrannus; Æschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Open to Juniors and Seniors. *Both terms, three hours.* Professor BAIN.

8. Prose Composition: advanced course. *Fall term, two hours.* Professor BAIN.

11. Greek History: the selections from Greek historians in Parts I and II of Baumeister's *Quellenbuch zur Alten Geschichte. Both terms, two hours.* Professor BAIN.

12. Bucolic Poetry: the Idylls of Theocritus, Bion, and Moschus. *Both terms, two hours.* Associate Professor BERNARD.

17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts, lectures and reports. *Spring term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

18. Critical Study of Special Authors: with lectures on Classical Greek Syntax, metres, dialects, oral and written translation into Greek, the history of Athens from the battle of the Arginusæ to the Restoration of the Democracy. *Both terms, three hours.* Professor BAIN.

DEPARTMENT OF HISTORY

10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of the Civil War and Reconstruction; lectures, readings, and reports. Open to Seniors. *Both terms, two hours.* Professor HAMILTON.

13. The American Constitution: research in the history of the Constitution of the United States. *Both terms, two hours.* Professor WAGSTAFF.

14. American Politics: lectures and research in the history of political parties of the United States. *Both terms, two hours.* Professor HAMILTON.

DEPARTMENT OF LATIN

5. Pliny: Selected Letters; Juvenal, Satires; Martial, selected epigrams; reading with special reference to the private life of the Romans at the close of the first century A. D. Open to Juniors and Seniors. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 9; to be omitted in 1913-1914.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Open to Juniors and Seniors. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be given in 1913-1914.

11. The Study of a Particular Author or Period in Roman Literature: practice in rapid reading, with translation of the more difficult passages only. *Both terms, two hours.* Professor GORDIS.

12. Lectures on Comparative Syntax of Greek and Latin: principles illustrated from Homer and Terence. *Both terms, two hours.* Associate Professor WILSON.

14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts; lectures and reports. *Fall term, two hours.* Professor GORDIS.

The attention of students electing this course is called to course 17 in the Department of Greek.

DEPARTMENT OF MATHEMATICS

3C. Stereotomy: a course in the application of descriptive geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers and culverts; a study of warped surfaces and drawings for the helicoidal arch. Open to Seniors;

prerequisite, Mathematics 3B. *Spring term, two hours.* Mr. ATKINSON.

4. Calculus; Analytic Mechanics. Open to Juniors and Seniors; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.

5. Theory of Equations (Burnside and Panton). Open to Juniors and Seniors. *Both terms, three hours.* Professor HENDERSON.

6. Differential Equations (Murray). Open to Seniors. *Both terms, three hours.* Professor HENDERSON.

7. Road and Railroad Surveying and Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.

7A. Hydraulics and Sanitary Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.

8. Mechanics of Materials. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, three hours.* Professor CAIN.

10. Theory of Structures. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, four hours.* Associate Professor HICKERSON.

11. Retaining Walls and Dams; Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.

13. Design of Structures. May be taken in connection with Mathematics 8 and 10. *Both terms, three hours.* Associate Professor HICKERSON.

15. Advanced Differential and Integral Calculus. Prerequisite Mathematics 4. *Both terms, two hours.* Professor CAIN.

17. Vector Analysis. Prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.

18. Modern Geometry, Pure and Analytic. Texts: Emch, Scott, Russell. Prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.

DEPARTMENT OF PHILOSOPHY

5. Epistemology: a study of the Critical Philosophy; lectures, theses. First term: Prolegomena and Practical Reason and the works that prepared the way for Kant. Second term: *Kritik der reinen Vernunft. Both terms, three hours.* Professor WILLIAMS.

6. A Companion Course to Philosophy 4: The aim of the course is to sketch the forces masterful in modern life. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILLIAMS.

DEPARTMENT OF PHYSICS

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electric nature of matter, radioactivity. Prerequisite, Physics 1. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.

6. Advanced Heat and Thermodynamics. Text-book: Edser's *Heat for Advanced Students.* Prerequisite, Physics 1 and Mathematics 2. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference book: Steinmetz's *Alternating Current Phenomena.* Prerequisite, Physics 10 and Mathematics 4. Open to Juniors and Seniors. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, $3.00 a term.

12B. Electric Power Transmission: a study of the theory, construction, and operation of low and high tension circuits for the transmission of power. Lectures and

problem work. Prerequisite, fall term of Physics 11. Open to Seniors. *Spring term, two hours.* Associate Professor DAGGETT.

13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference books: Hawkins and Wallis' *The Dynamo,* Hobart's *Dynamo Design,* Hobart and Ellis' *High-Speed Dynamo Electric Machinery.* Prerequisites, Physics 11 and 14, which may be taken in the same year with 13B. Open to Seniors. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Karapetoff's *Experimental Electrical Engineering.* Prerequisite, Physics 10. Open to Seniors. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, $5.00 a term.

DEPARTMENT OF ROMANCE LANGUAGES

3. French Literature: a general outline of its various periods; lectures, reading, reports. Prerequisite, French 2. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.

4A. French Literature in the Seventeenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.

This course alternates with course 4B; to be omitted in 1913-1914.

4B. French Literature in the Eighteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

This course alternates with course 4A; to be given in 1913-1914.

5. French Literature in the Nineteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

6. Old French: reading of the oldest texts: La Chanson de Roland; Aucassin et Nicolette; Chrétien de Troyes: lectures on French Phonology and Morphology. Prerequisite, French 2, a knowledge of Latin equivalent to courses 1 and 2 of the Latin Department, and a reading knowledge of German. *Both terms, two hours.* Associate Professor TOWLES.

7. Provençal: a study of the ancient language and literature of Provence. Prerequisite, course 6. *Both terms, two hours.* Professor DEY.

DEPARTMENT OF ZOOLOGY

[For description of Biological Laboratories, see page 187].

2. Comparative Anatomy and Embryology of the Vertebrates; dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. BROWNSON.

3. General Zoology: an advanced course for such as expect to teach or to carry on investigations in zoological, or allied medical, subjects. Laboratory work to cover anatomy, with some histology and embryology, of chief orders of animals, especially invertebrates: collecting trips; identification of forms; essentials of gross and microscopic photography: microscopic technique supplementary to that of the usual courses in embryology and histology. Conferences and lectures dealing with morphology of groups, history of zoology, and with the theory of biology as deduced from facts of comparative and experimental study. Junior and Senior elective. *Both terms, five hours.* Professor WILSON.

4. Animal Morphology: detailed study of problems in microscopic anatomy and embryology, chiefly comparative, in part experimental; laboratory work with use of classical text-books and original memoirs; theses. *Both terms, five hours or more.* Professor WILSON.

PART THREE

PECUNIARY AID AND EXPENSES
MEDALS AND PRIZES
REGULATIONS

Pecuniary Aid and Expenses

FELLOWSHIPS AND SCHOLARSHIPS

The Toch Fellowship in Chemistry. (Established in 1905 by Mr. Maximilian Toch.) The holder is expected to devote himself to research in technical chemistry. This fellowship yields $250 annually.

The LeDoux Fellowship in Chemistry. (Established in 1911 by Dr. Albert R. LeDoux.) The holder is expected to devote himself to research in chemistry. This fellowship is endowed and yields $300 annually.

A Fellowship in Technical Chemistry, established in 1911, is offered to graduate students for research in technical chemistry. This fellowship yields $200 annually.

A Fellowship in Organic Chemistry is offered to graduate students for research in Organic Chemistry. This fellowship yields $300 annually.

The Library Fellowships, two in number, established in 1907, yield each $150 annually. The holders are expected to assist in the Library.

Three Teaching Fellowships, established in 1907, yield each $200 annually. The holders are expected to assist in the work of instruction in the departments to which the fellowships are assigned.

The Cameron Scholarships. (Established in 1892.) The heirs of Paul Carrington Cameron founded, in his memory, ten scholarships of the value of sixty dollars each.

The Dialectic and Philanthropic Literary Societies' Scholarships. (Established in 1893.) The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of sixty dollars each, recipients of which shall give assistance in the Library.

The Moore Scholarships. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, bequeathed five thousand

dollars, the interest of which shall be devoted to paying the tuition of students.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed thirty-seven thousand dollars for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE MARY RUFFIN SMITH SCHOLARSHIPS. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University, in memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham county of fourteen hundred and sixty acres, known as Jones's Grove. The will provides that rents of the land, or the interest on the purchase money, if sold, shall be used to pay the tuition of such poor students as the Faculty shall appoint.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepard Speight bequeathed ten thousand dollars to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of sixty dollars.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of sixty dollars.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the class of 1888, High Point, N. C.

THE ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each one thousand dollars given.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs.

Shirley Carter, of Baltimore, Md., and Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

The Babbitt Scholarship. (Established in 1910.) This scholarship was founded by the Babbitt Corporation. It is awarded annually by Professor Herty to that member of the incoming Senior Class who has made the best record in the Department of Chemistry. The holder of this scholarship is required to investigate during the Senior year some subject connected with the chemistry of the oleoresins. The scholarship yields annually $250.

None of these scholarships is open to students in the professional Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August 15, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the President.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. This enables the University to aid effectively the public school teachers of the State.

LOAN FUNDS

The Deems Fund. (Established in 1879.) A fund of six hundred dollars was established by Rev. Charles Force Deems, D. D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munificence of Mr. William H. Vanderbilt, by a gift of ten thousand dollars, "as an addition to the Deems fund, to be loaned to indigent students of the University."

The Martin Fund. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the inter-

est of the fund can be used for loans. It became available during the session of 1907-1908.

All applications for loans must be filed in the President's office on or before August 15.

Applications for loans will not be considered unless accompanied by testimony from responsible persons as to poverty and merit. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest.

EXPENSES

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The charges for each of the two terms are as follows:

Tuition fee	$30.00
Fee for Matriculation*	12.50
Total	$42.50

Students taking courses in the laboratories are charged a small fee for materials. Every student must keep on deposit with the Treasurer two dollars as security for damages. Willful damage to University property is charged to the perpetrator, if known; otherwise it is charged to the general deposit for damages. Any balance is returned to the student at the end of the year.

Excellent board is furnished at the University Inn for fifteen dollars a month. Good board is also furnished at Commons for ten dollars a month. A few students can earn their board at Commons by waiting on the tables. The entire annual expenses need not exceed three hundred dollars, and they may be reduced to two hundred dollars.

It is confidently believed that no institution offers wider opportunities for self help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every

* This fee includes also the gymnasium fee, the library fee and the fee for medical services.

form of honorable labor. A number are here as a result of money earned or borrowed. Seventy are aided by loans, and about five hundred have received aid from the University in loans and scholarships in the past twenty years. A few students are selected by the authorities as waiters at Commons. Otherwise all opportunities available in the University and town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help They are not assigned by the President.

DORMITORY ACCOMMODATIONS

The University buildings contain unfurnished rooms, available for the accommodation of something over three hundred students. There is no charge for service in addition to the rent. All rooms are fitted with electric lights. Room rent ranges from seventy-five cents to $2.75 a month for each occupant, the price depending upon the location of the room. Battle, Vance, Pettigrew and Smith dormitories contain furnished rooms.

All the buildings of the University are heated by hot water according to the most improved methods. In the dormitories the charge for light and heat will be $2.00 a month for each room.

Medals and Prizes

The Colonial Dames Prize. (Established in 1908.) The North Carolina Society of Colonial Dames offers annually a first prize of fifty dollars and a second prize of twenty-five dollars for the best essays on some subject connected with the Colonial Period of North Carolina.

The Literary Essay Medal. (Established in 1890.) A gold medal is offered annually by Professor Thomas Hume to that member of the Senior Class who shall present the best essay or thesis on some distinctly literary subject.

The Mangum Medal in Oratory. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange county, in memory of their father, Willie Person Mangum, is continued by his granddaughters, Mrs. Julian A. Turner, Mrs. Stephen B. Weeks, and Miss Preston Leach, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

The Bingham Prize in Debate. (Established in 1899.) This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are representatives of the Literary Societies, and the contest is held on Tuesday evening of Commencement week.

The Kerr Prize in Geology and Mineralogy. (Established in 1889.) A prize of fifty dollars is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student, for the best thesis containing original work in the geology or mineralogy of North Carolina.

The Eben Alexander Prize in Greek. (Established in 1887.) A prize of ten dollars is offered annually to that member of the Sophomore Class who shall present the best rendering into English of selected passages of Greek not previously read.

The Worth Prize in Philosophy. (Established in 1883.) Mr. Charles Williams Worth, in memory of his father, David Easton Worth, of the class of 1853, will print the best thesis submitted by a student in Philosophy 4.

The Early English Text Society Prize. (Established in 1886.) A special prize is offered annually by the Early English Text Society, of London, for advanced work in Anglo-Saxon and Middle English.

The Bryan Prize. (Established in 1903.) A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

The Hunter Lee Harris Memorial. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually, in memory of Hunter Lee Harris, of the class of 1893, a gold medal for the best original story by any student in the University.

The Thomas Hume Prize. (Established in 1904.) A prize of fifty dollars is offered annually by Mr. W. G. Peckham, of New York, for the best work in the Old English Ballads and Shakespeare or Milton.

The William Cain Prize in Mathematics. (Established in 1908.) A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 4. No student will be recommended for the prize unless he attain to grade 2.

The Preston Cup, given by the Hon. E. R. Preston, in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

Regulations

REGISTRATION

All students are expected to present themselves for registration on *Monday, Tuesday,* or *Wednesday, September 8, 9,* or *10, 1913,* and *Friday* or *Saturday, January 2* or *3, 1914,* between the hours of 9 A. M. and 4 P. M., at the office of the Registrar.

ARRANGEMENT OF COURSES

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take less than 15 hours nor more than 18 hours of class-room work a week without special permission of the Faculty or of the President.

Students desiring to change their courses must make written application to the Committee on Courses for the desired change. The application will be considered by the committee and the instructors in the departments concerned and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty.

Candidates for more than one degree shall not offer the same elective in two courses nor a required study in one course as an elective in another.

ASSIGNMENT OF ROOMS

The University buildings contain two hundred and four unfurnished double rooms, available for the accommodation of students. These rooms are assigned to students by the Treasurer, at the beginning of each term, in the order of application.

The President reserves the right to require any student whom for any reason he considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract subject to the following special rules:

In order to retain his room for the next session, a student must file with the Treasurer before May 20th a room contract properly signed. Double rooms must be signed for by both intending occupants. The rooms thus signed for will be retained until August 31st provided a deposit of $10 be paid by each intending occupant before August 15th. The $10 deposit will be forfeited in case the signer or signers do not themselves occupy the room and pay the full rent. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt on the part of an occupant of a room to sell or transfer his right to occupancy shall be deemed a fraudulent transaction. The penalty of violating this rule shall be the forfeiture of the room by the new lessee.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form, (presence at hazing is regarded as participation), or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be requested to leave the University.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class. No student will be allowed more than five unexcused absences during a month. When this number is exceeded he will be placed on probation, and notified that any

further unexcused absences on his part during the next month may necessitate his withdrawal from college. This notice will be sent to his parents or guardian also.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work, within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the months of December, January, or May as much as 25 per cent. of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations, or at some time during the examination period.

Students who are absent during any term as much as 33⅓ per cent. of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may at the discretion of the instructor be debarred from the term examination.

Attendance at Chapel is compulsory for all students in the University except for members of the professional departments and for such others as are specially excused. Absence from Chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must be obtained from the President by the day of examination, and

communicated officially to the instructor holding the examination.

Freshmen, Sophomores, and Juniors who have been excused from an examination or have received the grade 5 (see page 124) in any subject will be given one, and only one, opportunity to make good the deficiency by special examination. Examinations on the Fall term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in January. Examinations on the Spring term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in May. In case a student fails in the special examination, he must repeat the subject with the class of the succeeding year. If the unremoved condition be in an elective subject not offered for the succeeding year, the student must take another elective valued at the same number of hours.

Seniors who have been excused from an examination or have received the grade 5 in any subject at either the Fall or Spring examination will be given but one opportunity to make good the deficiency by special examination, viz., during the regular examination period of the three lower classes in May.

Papers handed in at special examinations by students who have been officially excused from the regular examination will be graded. All others will be marked either "passed" or "failed." Students who hand in papers at regular examinations are considered to have relinquished any claim to grades on special examinations.

Students who absent themselves from regular examinations without having obtained an official excuse, and those who are present at the regular examinations but do not hand in papers, are given the grade 6 (see page 124). They are required to repeat the subject with the next lower class, or, in case of an elective not offered in the succeeding year, to take another elective valued at the same number of hours.

A student wishing a special examination in any subject must deposit an application in the office of the Registrar at least one week before the beginning of the period of examinations.

Each student is required to subscribe his name to the follow-

ing pledge on every paper: *"I hereby certify that during this examination I have neither given nor received aid."* No paper without the pledge will be read.

The order of examinations for the removal of conditions in September, 1913, will be as follows:

Wednesday, September 3.

10 A. M.	English.	2:30 P. M.	Zoology. Botany.

Thursday, September 4.

10 A. M.	German. French.	2:30 P. M.	Mathematics.

Friday, September 5.

10 A. M.	Latin. Philosophy.	2:30 P. M.	Geology. Education.

Saturday, September 6.

10 A. M.	Physics. Greek.	2:30 P. M.	Chemistry. History. Economics.

STANDING

Semi-annual reports of the standing of all students in all the studies of the previous term are sent to parents or guardians. The reports are based upon the following system of marking:

Grade 1, 95-100 per cent.
Grade 2, 90-95 per cent.
Grade 3, 80-90 per cent.
Grade 4, 70-80 per cent.
Grade 5, 60-70 per cent.
Grade 6, below 60 per cent.

Students must attain a grade of 4 to pass in any study. Grade 5 indicates that the student is conditioned, but may remove the deficiency by special examination, as explained on page 123. Students receiving grade 6 in any study must take such study again with the next lower class, or in case of an elective not

offered in the succeeding years, must take another elective valued at the same number of hours.

A student who has failed on all the examinations of the year in any college study may not take a higher class in that department, until he makes good his deficiency.

A student to be ranked as a Sophomore must have passed twelve hours of work; to be ranked as a Junior, twenty-four hours; to be ranked as a Senior, forty-two hours.

No Freshman who fails to pass at least six hours; and no Sophomore or Junior who fails to pass nine hours shall be readmitted to the College the following year except by a special vote of the faculty or a delegated committee of the faculty.

In addition to the semi-annual reports, there are sent out during the session six monthly reports in which the standing of students is indicated in a general way.

CERTIFICATES

A certificate is granted to a student who has completed with credit, in any department except those of Mathematics, Chemistry, Physics, and Geology, all work required for a degree together with elective work in the same department. (For detailed statement of requirements, see under the several departments of instruction.)

GRADUATION

Each Senior will be officially informed by the Registrar in August of all deficiencies standing against him.

The number of orations in the contest for the Mangum Medal is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to their respective Deans by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

ATHLETIC AND OTHER ORGANIZATIONS

No student will be allowed to take part in athletic contests, concerts, debates, etc., entailing absence from the University, whose parent or guardian objects to such participation.

A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest or in any other public capacity.

No student reported as deficient in a majority of his classes may participate in any athletic contest or otherwise publicly represent the University, until the deficiency is made good.

No team or club will be allowed to be absent from the University for more than ten lecture days during the term.

The manager of each athletic team or musical club shall submit to the Athletic Committee or to the President a schedule of all engagements before positive arrangements are made.

The rules governing the eligibility of players are as follows:

1. Before any student can become a member or a substitute member of any athletic team in the University, and take part in any intercollegiate contest, he must make application to the Committee on Athletics in the University and secure the endorsed approval of that Committee to his application. It shall be the duty of theAthletic Committee to have the Executive officers of the University endorse such application to the effect that the applicant is a regular student of the University, registered on or before October 12 of the fall session.

2. It shall be the duty of the Athletic Committee to inquire into and make a record of the athletic experiences of the applicant, and it shall be the duty of the applicant to appear before the Committee and answer on his honor such questions as the Committee may see fit to ask.

3. It shall be the duty of the Athletic Committee to require a pledge in writing of the applicant, certifying on his honor that he has never accepted, directly or indirectly, remuneration, compensatory gift, valuable consideration, or promise thereof, for his athletic services, and that he is in the proper and strict sense of the word an amateur player in collegiate athletic sports, before the Committee endorses his application.

4. No student of the University who has been a member or a substitute member of a baseball or football team at another college* or university during the preceding college year shall be permitted to become a member of either baseball or football team at this University until he shall have been a student in residence at this University for one collegiate year.

5. No person whose name is in the faculty list or appears in the catalogue list of officers of instruction and administration of the University, and who receives remuneration therefrom, shall be a member of any athletic team representing the University.

6. Inasmuch as a member of an athletic team of this University is a representative student and enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable.

7. Any student who has participated as a player on a college team in either football or baseball for a period of four years shall thereafter be ineligible for such athletic contests of the University.

FRATERNITIES

Undergraduate students may join fraternities after registration in their Sophomore year. Fraternity men are not allowed to pledge Freshmen to join fraternities.

* The term college is hereby interpreted to mean any college named in Table 28 of the Report of the U. S. Commissioner of Education, which has not less than 150 male students of collegiate grade recorded in the catalogue of the institution in question as students of the college year preceding the applicant's entrance into the University.

PART FOUR

THE SCHOOL OF LAW
THE SCHOOL OF MEDICINE
THE SCHOOL OF PHARMACY
THE SUMMER SCHOOL FOR TEACHERS

The School of Law

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.
Lucius Polk McGehee, A. B., Dean.

Lucius Polk McGehee, A. B., *Professor of Law.*
Patrick Henry Winston, *Professor of Law.*
Atwell Campbell McIntosh, A. M., *Professor of Law.*

The law school which developed into the Law School of the University was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a Justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University and it was provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University.

In 1899 the school was completely incorporated into the University with the late Judge James C. MacRae, previously a Justice of the Supreme Court of North Carolina, as the first Dean of the Law School.

REQUIREMENTS FOR ADMISSION

For admission to the regular work of the school, students, unless they are "special students" as explained below, must have completed fourteen units of work. This amount of work is about equivalent to four years training in a high school. It is the same as the entrance requirement to the Freshman class in the academic department of the University, and will be found explained on page 31 of General Catalogue.

Students over twenty years of age who are not able to qualify as regular students may be admitted as "special students" upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the school.

Seniors in the College will be admitted to take as electives courses selected, with the approval of the Dean, from the work of the law school.

The days for the registration of law students are the same as for the registration of students for the College. See the General Catalogue, page 120, or the University calendar.

Students who enter the School of Law for the Spring Term without having matriculated for the Fall Term, should present themselves for matriculation at the end of the Mid-Year examinations, as shown in the University Calendar in this Catalogue. Students, however, are advised to enter at the Fall Term, if it is possible.

DEGREE OF LL. B.

The degree of Bachelor of Laws (LL. B.) will be conferred upon students who have satisfactorily completed the entire courses prescribed for the Junior and Senior Classes of the Law School, and who satisfy the following conditions:

(*a*) Candidates must have completed academic courses equivalent to the work of the Freshman and Sophomore Classes in the University.

(*b*) Candidates must present satisfactory theses on legal subjects approved by the Dean.

(*c*) Candidates must have spent at least one year in residence at the University as students in the School of Law.

In the discretion of the Law Faculty, credit may be given to candidates for courses completed in other Schools of Law of recognized standing.

Plans have been considered for enlarging and lengthening the curriculum, and the Law Faculty has been authorized to formulate a three years' course of study for candidates for the degree of Bachelor of Laws. It is not considered wise to make this change at present, and it will be duly announced in the Catlogue.

DEGREES OF A. B. AND LL. B.

The University offers also the combined degrees of A. B. and LL. B. for the successful completion of the following requirements:

1. The courses in the College outlined below.
2. All academic work to be completed by the end of the last regular examination period of the Junior Year of the candidate.
3. The completion of all the courses in the School of Law prescribed for the LL. B. degree.
4. The presentation of a satisfactory thesis on a legal subject approved by the dean of the School of Law.

Prescribed academic work:

FIRST YEAR	SECOND YEAR	THIRD YEAR
Eng. 1 (3)	Eng. 2 (3)	Econ. 1 (3)
Pub. Spkg. 1 (1)	Lat. 2 (3)	Philos. 1 (3)
Math. 1 (4)	Hist. 3 (3)	Eng. (3)
Lat. 1 (4)	Select one: Greek 2 (3), French 2 (3), Ger. 2 (3)	Hist. (3)
Select one: Greek 1 (4), French 1 (3), Ger. 1 (3)	Select one: Math. 2 (3), Phys. 1 (3), Chem. 1 (3)	Elective (3)
Hist. 1 3		

CERTIFICATES

Any student who has been in regular attendance in the School of Law and who has satisfactorily completed one or more courses is entitled to a certificate of attendance and standing.

NUMBER OF HOURS WORK REQUIRED OR PERMITTED

No student will be permitted to take more than eighteen hours of work weekly except with the special permission of the Faculty.

No student, unless he is also taking other courses in the University, will be permitted to take less than ten hours of work weekly, nor will a student taking less than ten hours weekly be considered as studying law within the rule of the Supreme Court requiring two years' study of law as a necessary preliminary of applicants for license to practice in North Carolina.

COURSES OF INSTRUCTION

The courses offered and the general order in which they are taken up are indicated in the following programme of studies which is arranged to cover two years, known as the Junior Year and the Senior Year. The method of instruction varies in the different courses. In some text-books and lectures with collateral reading of cases form the basis of work. In others the subject is developed directly from the study of selections of decided cases, and quizzes thereon.

Junior Year

FALL TERM.

ELEMENTARY LAW: a general outline of the field of legal studies; Clark's *Elementary Law*. *Two hours a week.* PROFESSOR WINSTON.

CONTRACTS: the general principles of contract; text to be announced; McIntosh's *Cases on Contract*. *Four hours a week.* PROFESSOR MCINTOSH.

PERSONS: Domestic relations, including husband and wife with marriage and divorce, parent and child, guardian and ward, infancy, insanity, drunkenness, and aliens; Woodruff's *Cases on Domestic Relations and the Law of Persons,* and selected cases. *Two hours a week.* Professor MCGEHEE.

BAILMENTS: bailments, carriers, telegraphs, and telephones; Goddard's *Cases on Bailments and Carriers*. *Two hours a week.* Professor MCINTOSH.

AGENCY: Mechem's *Cases on Agency*. *Two hours a week.* Professor MCGEHEE.

PROPERTY: a rapid outline of Personal Property, after which the study of Real Property is begun; lectures; Tiffany's *Modern Law of Real Property*. *Three hours a week.* Professor WINSTON.

SPRING TERM.

CRIMINAL LAW: May's *Criminal Law,* with statutes and selected cases. *Two hours a week.* Professor WINSTON.

TORTS: Burdick's *Torts,* Mordecai and McIntosh's *Cases on Remedies. Three hours a week.* Professor McINTOSH.

SALES: Erwin's *Cases on Sales. Two hours a week.* Professor McGEHEE.

NEGOTIABLE INSTRUMENTS: Bigelow's *Cases on Bills and Notes,* and *The Negotiable Instrument Law. Two hours a week.* Professor McINTOSH.

QUASI-CONTRACTS: lectures and selected cases. *One hour a week.* Professor McGEHEE.

PROPERTY: the law of Real Property as presented in Tiffany's *Modern Law of Real Property* is completed. *Three hours a week.* Professor WINSTON.

PLEADING AND PRACTICE: a study of remedies and pleading, which continues throughout the remainder of the student's course, is begun. This term is devoted to common law remedies and common law pleading. Shipp and Daish's *Cases on Common Law Pleading;* Mordecai and McIntosh's *Cases on Remedies. Two hours a week.* Professor McGEHEE.

Senior Year

FALL TERM.

CONSTITUTIONAL LAW: Boyd's *Cases on Constitutional Law* and selected cases; lectures. *Four hours a week.* Professor McGEHEE.

EQUITY: Bispham's *Principles of Equity. Three hours a week.* Professor WINSTON.

EVIDENCE: Wigmore's *Cases on Evidence. Three hours a week.* Professor McINTOSH.

INSURANCE: Richard's *Cases on Insurance. Two hours a week.* Professor WINSTON.

FEDERAL COURTS: The United States Courts Cases; the study of the law and procedure in selected topics; Hughes on *Federal Jurisdiction. One hour a week.* Professor McINTOSH.

PLEADING AND PRACTICE: after a study of equity pleading and procedure, pleading under American code system is begun; *North Carolina Code of Civil Procedure;* lectures. *Two hours a week.* Professor MCGEHEE.

SPRING TERM.

PRIVATE CORPORATIONS: Clark on *Corporations,* with cases. *Three hours a week.* Professor MCGEHEE.

*PUBLIC CORPORATIONS: Elliot's *Public Corporations,* with cases. *Two hours a week.* Professor MCINTOSH.

*BANKRUPCY AND INSOLVENCY: Assignment for Benefit of Creditors, Creditor's Remedies, and the Federal Bankruptcy Act; lectures, selected cases, the Federal bankruptcy act. *Two hours a week.* Professor MCINTOSH.

PARTNERSHIP: Mechem's *Cases on Partnership. Two hours a week.* Professor WINSTON.

*SURETYSHIP: Bunker's *Cases on Suretyship. One hour a week.* Professor WINSTON.
Alternates with Conflict of Laws. To be given in 1914.

WILLS AND ADMINISTRATION: Costigan's *Cases on Wills and Administration. Two hours a week.* Professor WINSTON.

*CONFLICT OF LAWS: lectures and cases. *One hour a week.* Professor MCINTOSH.
Alternates with Suretyship. To be omitted in 1914.

*ADMIRALTY: Hughes on *Admiralty. One hour a week.* Professor MCINTOSH.

PRACTICE AND PROCEDURE: Code pleading and practice; *North Carolina Code of Civil Procedure;* cases and lectures. *Two hours a week.* Professor MCGEHEE.

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* From the subjects marked with an asterisk the student may omit a course or courses amounting to two hours of work weekly, devoting the time gained to the preparation of his thesis.

SCHEDULE OF LAW RECITATIONS.

Senior Studies in CAPS; Junior in small type.

	8:30	9:45	10:40	11:35	12:30
Fall	Bailments	CONST. L.	FED. CTS.	Agency	EVIDENCE
MONDAY					
Spring	Bills & Notes	PRIV. CORP.	Plead., Etc.	Sales	BANKR'CY
Fall	PLEAD., Etc.	EQUITY	Property	Contracts	CONST. L.
TUESDAY					
Spring	PLEAD., Etc.	PART'SHIP	Property	Torts	MUN. CORP.
Fall	Bailments	CONST. L.	Persons	Contracts	INSURANCE
WEDN'SDAY					
Spring	Bills & Notes	PRIV. CORP.	Quasi-Contr.	BANKR'CY	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
THURSDAY					
Spring	Crim. Law	SURETYS'P	Property	Torts	ADMIRALTY
Fall	PLEAD., Etc.	CONST. L.	Persons	Agency	INSURANCE
FRIDAY					
Spring	PLEAD., Etc.	PRIV. CORP.	Plead., Etc.	Sales	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
SATURDAY					
Spring	Crim. Law	PART'SHIP	Property	Torts	MUN. CORP.

MOOT COURT

A Moot Court for practice in the preparation of pleadings, the argument of law points, and the actual conduct of trials is a feature of the school. It is conducted by the students with the assistance and co-operation of the Faculty. The court meets weekly, a member of the Faculty presiding.

ADDITIONAL OPPORTUNITIES OF UNIVERSITY LIFE

Students in the Law School will be admitted without additional expense to the courses given in the Departments of Economics and of History in the College of Liberal Arts and to the courses in Public Speaking and English, subject to the rules stated as to the number of hours which a student may take. A

student taking such a course must satisfy the entrance requirements for the course selected.

Students of the School may become members of the Dialetic and Philanthropic Literary Societies, where they may take part in or witness debates of a high order and train themselves in parliamentary law. As students of the University they enjoy all the privileges of the University library, the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

THE LAW LIBRARY

The law library is housed in the Law Building and contains about 4,000 volumes. The annual revenue of a fund raised by the former students and friends of the late Professor John Manning, LL. D., who presided over the School for many years, is devoted to the purchase of books for the library. Free access to the library is allowed to the students of the School, though they are not permitted to take the books from the building.

PRIZES

The Henry R. Bryan Prize: Mr. Shepard Bryan of the Atlanta Bar offers annually, in honor of his father, the Honorable Henry R. Bryan of Newbern, N. C., a set of Cooley's Insurance Briefs to that member of the Senior Law Class who shall submit the best thesis upon an approved legal subject.

Callagan and Company Law Publishers, Chicago, Prize: A set of Andrew's American Law is offered by the publishers to that member of the Senior Class who obtains the best general average in his work for the year.

FEES AND EXPENSES

Tuition for Fall and Spring terms, each..$35.00
Registration fees..... 12.50

There are no scholarships in the School. Good board is furnished at Commons Hall for $10 a month and at the University Inn for $15 a month. In the village board may be secured for from $8 to $15, or with rooms, from $10 to $20 a month.

The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to $2.75 a month, for each occupant; and for each room a charge of one dollar a month is made for electric light and one dollar a month for heat.

ADMISSION TO THE BAR OF NORTH CAROLINA

Admission to the bar of North Carolina is under the direct control of the Supreme Court of the State. The rules of the Court as to the examination and licensing of applicants are given on page 141. Where circumstances and means permit, the reading should be done at a regular school of law. But the requirements of the rule may be satisfied by private reading. Students who have read law for a year privately or in a law office may, by attending the school for one year, beginning either in September or January, and by attending a term of the summer school, have an opportunity to study or review the course required by the Supreme Court of applicants for license.

To do this, it will be necessary for such students to select, with the approval of the Faculty, subjects from the regular courses of both the Junior and Senior years. Such a course is not advised or approved except in cases where limited means render it a regrettable necessity. Two years spent in systematic study under competent instructors is a minimum period for mastering even the elements of so wide, complicated, and technical a subject as the law. The student should remember that he is preparing for his life-work, and only detriment to that life-work can in general result from a feverish anxiety to cut short the period of preparation and to abridge the studies which experience has marked out for the acquisition of the necessary qualifications.

THE SUMMER LAW SCHOOL

A session of the School of Law is maintained during each summer for the purpose of providing:

1st. A course for those who wish to begin the study of law.

2nd. A thorough review of the course prescribed by the Supreme Court of North Carolina for application for license.

3rd. An opportunity for instruction for men who cannot become resident students during the scholastic year.

4th. An opportunity for members of the Bar to review certain branches of law.

SESSION

The term for the summer of 1913 begins June 18 and ends August 28, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

LECTURES AND RECITATIONS

At this session two daily lectures and recitations of one hour and a half each will be held by two professors of the Law Faculty. In addition there will be frequent quizzes. The two courses offered are intended to cover the requirements for reading prescribed, given below, in the rules of the Supreme Court of North Carolina. The instruction is conducted by means of text-books, lectures, leading cases, quizzes, and moot court.

An outline of the work and of the time assigned to the various subjects is approximately as follows:

Domestic Relations (6 lectures); Contracts (18 lectures); Torts (12 lectures); Corporations (6 lectures); Evidence (6 lectures); Pleading and the Code (12 lectures); Criminal Law (8 lectures); Personal Property (6 lectures); Real Property (20 lectures); Executors and Administrators (6 lectures); Equity (9 lectures); Constitutional Law (9 lectures); Legal Ethics (2 lectures).

The text-books used will be, as far as possible, those used at the regular session of the school, but any standard text-book on any of these subjects will be accepted.

EXAMINATIONS

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to enable him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students

as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

FEES AND EXPENSES

Tuition for term.....$30.00
Registration and Incidental Fees..... 5.00

The above mentioned fees cover privileges of the University library, gymnasium, and baths. Board in the village, with room, will cost from $10 to $20 a month; without room, from $10 to $15.

For further information address the President of the University or the Dean of the School of Law, Chapel Hill, N. C.

RULES OF THE SUPREME COURT OF NORTH CAROLINA AS TO ADMISSION TO THE BAR.

1. Applicants for license to practice law will be examined on the first Monday in February and the last Monday in August of each year, and at no other time. All examinations will be in writing.

2. Each applicant must have attained the age of twenty-one years or will arrive at that age before the time for the next examination, and must have studied: Ewell's Essentials, 3 vols.; Clark on Corporations; Schouler on Executors; Bispham's Equity; Clark's Code of Civil Procedure; Volume 1, Revisal (1905) of North Carolina; Constitution of North Carolina; Constitution of the United States; Creasy's English Constitution; Sharswood's Legal Ethics; Sheppard's Constitutional Text-Book; Cooley's Principles of Constitutional Law. *Or their equivalents.*

Each applicant must have read law for two years at least, and file a certificate of good moral character, signed by two members of the bar who are practicing attorneys of this Court, and also a certificate of a Dean of a Law School, or of a member of the bar of this Court that the applicant has read law under his instruction or to his knowledge or satisfaction, for two years, and upon examination by said instructor has been found competent and proficient in said course. Such certificate, while indispensable, will, of course, not be conclusive evidence of proficiency. An applicant from another state can file a certificate of good moral character signed by any State officer of the state from which he comes. * * * *

3. Each applicant shall deposit with the clerk the sum of $23.50 for the license and the clerk's fee before he shall be examined. * * *

The School of Medicine

FACULTY

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.
Isaac Hall Manning, M. D., Dean.

Charles Staples Mangum, A. B., M. D., *Professor of Anatomy.*
Isaac Hall Manning, M. D., *Professor of Physiology.*
William DeBerniere MacNider, M. D., *Professor of Pharmacology.*
Wade Hampton Brown, B. S., M. D., *Professor of Pathology.*
Robert Baker Lawson, M. D., *Associate Professor of Anatomy.*
Louis deKeyser Belden, S. B., *Assistant in Physiological Chemistry.*
Grady Rudisill Roberts, *Assistant in Anatomy.*
Julian Nolley Tolar, *Assistant in Histology.*
James Steven Simmons, *Assistant in Histology.*
Adolphus Bart Greenwood, A. B., *Assistant in Pharmacology.*

Henry Van Peters Wilson, Ph. D., *Professor of Zoology.*
Edward Vernon Howell, A. B., Ph. G., *Professor of Pharmacy.*
Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*
William Chambers Coker, Ph. D., *Professor of Botany.*
Andrew Henry Patterson, A. M., *Professor of Physics.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
James Munsie Bell, Ph. D., *Associate Professor of Physical Chemistry.*
Charles Scott Venable, A. M., *Instructor in Chemistry.*
John Grover Beard, Ph. G., *Instructor in Pharmacy.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Wesley Critz George, A. M., *Instructor in Zoology.*
William Battle Cobb, A. B., *Assistant in Botany.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*
CARNIE BLAKE CARTER, *Assistant in Chemistry.*
FRANK DAVIES CONROY, *Assistant in Chemistry.*
CLARENCE BALLEW HOKE, *Assistant in Chemistry.*
JACKSON TOWNSEND, *Assistant in Chemistry.*
JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*
ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

HISTORICAL SKETCH

The School of Medicine was established in 1879 and Dr. Thomas W. Harris was chosen to direct its work. A course of two years was offered in theoretical and practical medicine, but owing to the limited facilities this plan was not found practicable and was abandoned in 1886. In 1890, however, the School was re-opened and, under the direction of Dr. R. H. Whitehead, a course of one year, embracing only the elementary subjects—Anatomy, Chemistry, Physics, Physiology, etc. —was offered. As the requirements leading to the degree of Doctor of Medicine were increased by the leading medical colleges, the course was extended to embrace the first two years of the four year curriculum. In 1902 a Clinical Department was established at Raleigh, but since the funds for a proper equipment could not be provided, this was abandoned in 1909. In 1898 the School was admitted to membership in the Association of American Medical Colleges, and in 1901 was incorporated as an integral part of the University, on the same footing as the Graduate and the other professional schools.

COURSES OFFERED

The following courses are offered:

1. A Preparatory or Pre-medical Course: a course of one year of college work in which special attention is given to Chemistry, Physics, and Zoology. This is the minimum requirement for admission to the Medical School.

2. A Combined Course Leading to the Degree of Bachelor of Science: This consists of a prescribed college course of two years and the medical course of two

years. On completing this four year course the School of Applied Science offers the degree of Bachelor of Science. The student is therefore able to obtain the scientific degree and the degree of Doctor of Medicine in six years.

3. The Medical Course: The American Medical Association, the Association of American Medical Colleges, and other medical organizations recommend for the degree of Doctor of Medicine a graded course of four years in a medical school. They also suggest an arrangement of subjects in which the so-called laboratory subjects are to be given in the first two and the clinical subjects in the last two years. The medical course covers the subjects of the first two years. On completing the course a certificate is given which is accepted in full by most of the medical schools.

THE CURRICULUM

Preparatory or Premedical Course

English, 1, 3 hrs.
Zoology 1, 3 hrs.
Physics A, 3 hrs.
Chemistry 1, 3 hrs.
Chemistry 3A, 1½ hrs.
Chemistry 4A, 1 hr.

The Combined Course: College Studies

FIRST YEAR		SECOND YEAR	
	English 1, 3 hrs.		English 2, 3 hrs.
	Mathematics 1, 4 hrs.		Physics 1, 3 hrs.
	Chemistry 1, 3 hrs.		Zoology 1, 3 hrs.
	Botany 1, 3 hrs.		Chemistry 3A, 1½ hrs.
			Chemistry 4A, 1 hr.
Select one	German 1, 3 hrs.	Select one	German 1 or 2, 3 hrs.
	French 1, 3 hrs.		French 1 or 2, 3 hrs.
	Latin 1, 4 hrs.		Latin 1, 4 hrs. or 2, 3 hrs.
		Select one	Drawing 1, 2 hrs.
			History 1, 3 hrs.

In the College of Liberal Arts two hours of laboratory work are counted as one hour. In the premedical course and in the combined course this system is followed. In the medical curriculum two hours of laboratory work are counted as two hours.

The Medical Course

FIRST YEAR.

Organic Chemistry (Chem.10) :*Six hours a week until April 1.*

Toxicology (Chem. 9) : *Six hours a week from April 1 to the end of the term.*

Comparative Anatomy (Zoology 2A).—*Six hours a week, fall term.*

Human Anatomy.—*Ten hours a week, fall and spring terms.*

Histology.—*Nine hours a week, fall term.*

Embryology.—*Six hours a week, spring term.*

Pharmacy.—*Six hours a week, spring term.*

SECOND YEAR.

Human Anatomy.—*Nine hours a week, fall term.*

Neuro-Anatomy.—*Six hours a week, fall term.*

Bacteriology.—*Nine hours a week, fall term.*

Physiology.—*Five hours a week, fall term; ten hours a week, spring term.*

Physiological Chemistry.—*Six hours a week, fall term.*

Pathology.—*Twelve hours a week, spring term.*

Pharmacology.—*Ten hours a week, spring term.*

Minor Surgery—Normal Physical Diagnosis.—*Four hours a week, spring term.*

SUMMARY OF FIRST AND SECOND YEARS.

Subjects	*Hours*
Chemistry	288
Anatomy	828
Physiology	255
Bacteriology	144
Pathology	200
Pharmacology	167
Pharmacy	90
Minor Surgery and Physical Diagnosis	60
Total	2032 hours.

ADMISSION

Candidates for admission and students already members of the School should present themselves to the President and Dean of the School for registration on *Monday, Tuesday* or *Wednesday, September 8, 9,* or *10, 1913,* and *Friday* or *Saturday, January 2,* or *3, 1914.*

ENTRANCE REQUIREMENTS

The requirements for admission to the premedical and the combined courses are the same as for the College of Liberal Arts. (See page 31.)

The requirements for admission into the Medical School are the satisfactory completion of one year in the University or certificates of its equivalent from an approved college. Students may be admitted to the second year of the Medical course upon furnishing certificates of having completed the first year in an approved Medical school, or upon passing an examination upon the subjects studied in the first year. An examination will not be allowed until the candidate furnishes a certificate of having attended eighty per cent. of the hours required.

EXAMINATIONS

Regular examinations are held during the two regular examination periods of the College of Liberal Arts. Special examinations will be given for the purpose of making up deficiencies during Registration Week. A fee of $5.00 will be charged each applicant for an examination at any other time. An examination will not be allowed if the student is charged with ten per cent. of unexcused absences or with absences amounting to twenty per cent. of the total number of hours assigned to the subject.

CERTIFICATES

A certificate will be granted to those who complete the premedical and the medical courses. If a student fails on any one of the required subjects, a statement indicating the subjects completed will be given.

EXPENSES

The following are the charges a term payable at the beginning of each term in September and January respectively:

Tuition	$35.00
Fee for matriculation (registration, library, infirmary, etc.)	12.50
Total	$47.50

In addition the following fees will be charged for laboratory courses a term:

Physiological Chemistry, $5.00; Chemistry 10, $5.00; Zoology 1, $3.00; Zoology 2, $5.00; Experimental Physiology, $5.00; Pharmacology, $5.00; Pharmacy, $5.00; Bacteriology, $2.50; Pathology, $2.50; for the use of the microscope, $1.00.

The laboratory fees are divided approximately equally among the four terms. The total charge is between $58.00 and $60.00 a term.

The following are the charges a term for students pursuing the premedical course:

Tuition	$30.00
Matriculation, etc.	12.50
Laboratories	5.00
Total	$47.50

Good board is furnished at Commons Hall for $10 a month and at the University Inn for $15 a month. The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to $2.75 a month for each occupant. For each room a charge of $2.00 a month is made for electric light and heat.

PRIZES AND SCHOLARSHIPS

The Wood Scholarship. (Established in 1895.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her husband, the late Dr. Thomas Fanning Wood, a scholarship, covering the tuition and fees.

THE GENERAL PLAN OF INSTRUCTION

In the arrangement and conduct of the courses an effort is made to follow modern ideals in medical education. A year of college training in Chemistry, Physics, and Zoology is insisted upon as the minimum preparation for the study of medicine. In order, however, to encourage a more thorough preparation, the degree of Bachelor of Science is offered to those students who complete a prescribed college course of two years and the two years of the medical course. In offering this degree the value of a properly directed college course of four years is not minimized, but on the contrary is earnestly recommended.

In the arrangement of the course of studies the attempt is made to have the subjects follow in natural sequence. Elementary courses in General Chemistry, Physics, and Zoology having been completed in the pre-medical year, more advanced courses in these subjects are pursued. In the first year Organic Chemistry, and Comparative Anatomy, with special reference to the requirements of the medical student, Gross Human Anatomy, Histology, Embryology, and an elementary course in Pharmacy are studied. In the second year Human Anatomy, Physiological Chemistry, and Bacteriology are completed in the first half; Materia Medica and Pharmacology, Pathology, and Normal Physical Diagnosis in the second half. Physiology is begun and completed in the second year. At the expiration of the two years the student will have completed the fundamental branches of medicine, and will be prepared to enter upon the study of the more practical subjects.

In the plan of instruction the laboratory method, supplemented with systematic lectures and demonstrations, is pursued. The lectures and the laboratory courses are given contemporaneously as far as possible, for it is believed that the student, in this way, not only acquires technical skill, but a more thorough knowledge of the subject.

When advisable the classes are divided into small sections so that the work of the student is under the direct supervision and close observation of the instructor. Frequent oral and written quizzes and a final examination are required in each subject, and in the laboratory courses each student is required to record the observations in a note book, which must be sub-

mitted from time to time to the instructor and is held for a part of the final grade.

Regular attendance upon all classes is required of each student. A student who is absent twenty per cent. of the total number of hours assigned each subject, or is charged with ten percent. of unexcused absences, is denied the privilege of an examination in the subject in which the absences occur.

EQUIPMENT

At a meeting of the Executive Committee of the Board of Trustees held at Raleigh in March, 1911, an appropriation of $50,000 was made for the erection and equipment of a new medical building. This building, which bears the name of Caldwell Hall, is now completed.

The new building is located on the south side of Cameron avenue opposite Davie Hall, facing north. The front wall of the main building is on a line with the rear of the Carr building. This location secures the north light in all of the laboratories used for microscopic work.

To the north is the main building, 117x64, and adjoining this, to the south, is a wing, 63x36, each containing a basement and two floors. The first floor of the main building is bisected from north to south by an entrance hall 14 feet wide, and from east to west by a corridor 8 feet wide, dividing the floor space into four equal parts. Each part is subdivided into one large class laboratory, 34x27, and two private laboratories, 14x12½. The class laboratories lie next to the entrance hall. Those on the north side will be used for microscopic work in Histology and Embryology. They are lighted from five large windows on the north side. On the south side are the laboratories for Physiological Chemistry and Experimental Physiology.

The private laboratories are located on the farther side of the class laboratories. The corner laboratories, with two large double windows, will be occupied by the instructors. The private laboratory adjoining the corridor will be occupied by the assistants. The office of the Dean is in one of the private laboratories on this floor and may be entered from the west end of the corridor.

The second floor is a duplicate of the first floor with the exception that the space above the entrance hall is enclosed and is used for the Departmental Library. On the north side are the Bacteriological and Pathological laboratories, and on the south side the Pharmacological laboratory and a lecture room. The laboratories here have the same arrangement as those on the first floor. Nearly opposite the Pathological laboratory is the Pathological Museum.

At the ends of the corridor on the first and second floors are small fire proof rooms which will be used for incubators, thermostats, and other purposes requiring the continuous use of oil or gas lamps.

In the basement of the main building provision is made for the care of animals. The floors of the several apartments are covered with cement and are inclined to a common drain pipe. The rooms are well ventilated, lighted, and heated, and are provided with all necessary facilities for proper sanitation.

On the first floor of the wing adjoining the main building is the main lecture hall, and in the rear of this is the amphitheatre for anatomical demonstrations. In the rear of the amphitheatre is the Anatomical Museum.

On the second floor of the wing are the anatomical laboratories. In the centre, and occupying a large part of the floor space, is the main dissecting hall, which has a cement floor and is lighted by six large windows and two skylights. On either side of a short corridor at the front are two private laboratories for special dissections, and at the end of the corridor the two laboratories for the instructors. The latter are entered from the upper hall of the main building. In the rear of the main dissecting hall are the lavatory and locker rooms.

The basement of the wing is divided by a solid brick wall from east to west. On the north of this wall are the store rooms, a photographic room, a room for the refrigerating and gas plants; on the south side are the storage tanks for cadavers, the incinerator, and other arrangements for the care of anatomical material. In the rear end of the basement is an entrance hall containing the elevator and the stairs leading to the amphitheatre and the dissecting hall. The building is heated from the central heating plant and abundantly supplied

with water and electric light. The dissecting hall is supplied with hot and cold water.

The laboratories are well equipped with apparatus for the use of the students and the research work of the teachers. Animals are available in adequate numbers for all proper experimental work.

The Departmental Library contains approximately three thousand volumes. The more important periodicals pertaining especially to the subjects offered in the course are received regularly and kept on file.

The medical students have free access to the general Library, the Chemical, Physical, and Biological laboratories, which are described in Part Five of the general catalogue.

COURSES OF INSTRUCTION

Chemistry

1. General Descriptive Chemistry: Premedical: the elements are studied in a systematic manner; the laws governing their combination and the compounds resulting are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson's *Elementary Chemistry;* Remsen's *Organic Chemistry. Both terms, three hours.* Professor HERTY and Messrs. VENABLE and CARTER.

Laboratory fee, $1.25 a term.

3A. Qualitative Analysis: Premedical: laboratory work with lectures; practice is given in the analysis of known and unknown mixtures. Required. *Fall term, three hours.* Professor WHEELER and Mr. HOKE.

Laboratory fee, $7.50.

4A. Quantitative Analysis: Premedical: a brief course in gravimetric methods followed by a more extended course in volumetric methods. Required. *Spring term, two hours.* Associate Professor BELL.

Laboratory fee, $4.00.

5. Organic Chemistry: lectures and laboratory work. Prerequisite, Chemistry 1 and 3. Elective. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, $4.00 a term.

5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic compounds. Elective. Prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, $6.00 a term.

9. Toxicology: laboratory work; the chemical behavior of poisons and their separation is studied in the laboratory. Text: Autenrieth and Warren's *Detection of Poisons.* Required. *Spring term after April 1, three hours.* Professor WHEELER and Mr. CONROY.

Laboratory fee, $1.50.

10. Organic Chemistry: lectures and laboratory work. Part I. A general survey of Organic Chemistry and the synthetic preparation of compounds of special interest to medical men.

Part II. A more detailed study of the fats, carbohydrates, and proteins, including laboratory work. Text Haskin's and Macleod's *Organic Chemistry. Fall term and Spring term to April, three hours.* Professor WHEELER and Mr. CONROY.

Laboratory fee, $5.00 a term, including Chemistry 9.

Physics

A. Elementary Physics: the fundamental facts of Physics are studied with some special attention to heat and electricity. Text-book, lectures, and laboratory work. *Both terms, three hours.* Mr. CHRISLER.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

4. Electricity and Magnetism: a study of the phenomena of electricity and magnetism, and their application in modern life, including the use of the X-rays, the rays of Radium and other applications in Electrotherapeu-

tics. Laboratory work required. Elective. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, $2.00 a term.

Zoology

1. Elements of Zoology; premedical; an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Parker. Professor WILSON and Mr. GEORGE.

Laboratory fee, $3.00 a term.

2. Comparative Anatomy of Vertebrates (first half); medical; dissection of vertebrate types: ascidian, amphioxus, cyclostome, fish, bird, mammal. Text: Kingsley. Professor WILSON and Mr. BROWNSON.

Laboratory fee, $5.00.

Botany

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Elective in the first year. Professor COKER and Mr. COBB.

Histology

1. General Histology and Organology. This course includes (*a*) the study of the fundamental tissues followed by (*b*) the study of the microscopic structure of the various organs, and (*c*) the fundamentals of histological technique. Fall term. Lectures, recitations, and laboratory. *Nine hours a week.* Professor BROWN, Messrs. TOLAR and SIMMONS.

2. Advanced Histology: To those who have completed course 1 or its equivalent, opportunity will be offered to pursue advanced work or original investigation in this subject. Arrangements for this course may be made with Professor BROWN.

Course 1 is required of all medical students. Course 2 is elective.

Anatomy

Professor MANGUM, Associate Professor LAWSON, and Mr. ROBERTS.

The method of instruction is one of dissection and demonstration supplemented by lectures. Each student is required to dissect one-half of the body under the constant supervision of an instructor, who examines him daily upon the work done. Frequent practical examinations are held upon which stress is laid in order to enforce proper study of the cadaver.

1. In the First Year the lectures and demonstrations proceed by systems. The bones, the articulations, the descriptive anatomy and relations of the viscera are demonstrated to each student. During this year the student dissects one-fourth of the body.

2. In the Second Year the student finishes the dissection of the body and especial stress is laid upon topographical anatomy and the relations of anatomy to surgery. A final examination is held upon the entire subject of gross anatomy.

3. Neuro-Anatomy: special laboratory study of the gross and microscopic anatomy of the cord and encephalon Text: Cunningham, Gray, or Morris; Cunningham's *Manual of Practical Anatomy;* Whitehead's *Anatomy of the Brain.*

4. Vertebrate Embryology: The lectures embrace the phenomena of cell division, ovulation, and impregnation, and the development of the human body to the end of the fœtal stage. In the laboratory the student verifies the facts by the study of organogeny in the chick and in the pig and the fœtal membranes in mammals. Texts: Bailey and Miller; Marshall; Minot's *Laboratory Text.*

Physiology

Professor MANNING and Mr. BELDEN.

The course in Physiology is given in three parts, as follows:

1. General Physiology: a lecture course of five hours a week extending through the year; a brief account of cell physiology is followed by a detailed discussion of the facts and theories of Human Physiology; attention is called to the application of physiology in medical practice as far as possible. Text: Howell.

2. Physiological Chemistry: a laboratory course of six hours a week during the fall term. The purely chemical aspects of Bio-chemistry are considered in the course in organic chemistry (Chem. 10) given in the first year. In the course in Physiological Chemistry a practical application of the principles of Bio-chemistry is made in the study of Human Physiology. The chemistry of digestion, of the secretions, of blood, and of the urine is studied in detail, qualitatively and quantitatively, and such tissues are examined as will afford evidence of the course of metabolic processes. Laboratory Notes. References: Hammarsten, Hawk.

3. Experimental Physiology: a laboratory course of five hours a week during the spring term. In this course the student studies the heart and neuro-muscular systems on the turtle and the frog; the circulatory, respiratory, and glandular systems on the mammal. In the former the class is divided into groups of two and in the latter into groups of four. Each group is supplied with mimeographed directions for the performance of each experiment and a full equipment of apparatus, and each student is required to keep a record of the observations, including tracings. Reference: Stewart, Porter, Hill, etc.

Materia Medica and Pharmacology

Professor MacNider and Mr. Greenwood.

1. Materia Medica: the general consideration of this subject is given in the first year of the medical curriculum. In the second year the important drugs are studied in groups, the classification depending upon their physiological action. Emphasis is given to the most import-

ant drugs, and their physiological action is studied in detail.

2. Prescription Writing: as early as possible in the course the student's attention is directed to the logical application of various drugs to the relief of morbid conditions. Hypothetical conditions are discussed, and each student writes one or more prescriptions and gives his reasons for the use of the various drugs he employs. The prescriptions are discussed and criticised by the students and the instructor.

3. Pharmacodynamics: this part of the general course in Pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the students. Each student is required to hand in to the instructor, at the completion of the course, a laboratory note book containing a detailed account of each experiment, an explanation of the results obtained, and the tracings made during the experiments. Oral and written recitations are frequently held. Text: Cushny. *Pharmacology and Therapeutics.* Reference: Sollman.

4. Advanced Pharmacology: two types of courses will be offered: (*a*) an experimental study of the action of various drugs upon the normal animal; (*b*) an experimental study of the action of various drugs and other agents upon the pathological animal.

Bacteriology

Professor MacNider and Mr. Greenwood.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria. A few non-pathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by

inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

Minor Surgery and Physical Diagnosis

Associate Professor LAWSON.

The class practices the application of bandages, and learns the modern method of dressings wounds. A short course in Physical Diagnosis is given. Text: Davis on Bandaging.

Pharmacy

Professor HOWELL.

The course in Pharmacy will consist in laboratory work supplemented by lectures. The student will have an opportunity to study the crude drugs and their official prescriptions and doses, and to familiarize himself with pharmaceutical methods in the preparation of official drugs, in writing and compounding prescriptions.

Hygiene

Professor MANNING.

A short course in the elementary principles of Hygiene and Sanitation.

Pathology

Professor BROWN, Messrs. TOLAR and SIMMONS.

1. General and Special Pathology: this course embraces a thorough consideration of general pathological processes from their chemical and physiological as well as their morphological aspects. The subject of Special

Pathology is considered upon the same broad basis. The course includes a series of lectures and recitations combined with laboratory work and demonstrations of gross and microscopical preparations. Second term. Lectures and recitations, *four hours a week;* laboratory, *nine hours a week.* Prerequisite, Histology 1.

2. Advanced Pathology: opportunity for advanced work in pathology or for original investigation will be offered to a limited number of students upon the presentation of satisfactory evidence of ability to pursue work of this character.

Course 1 is required of all medical students. Course 2 may be elected by special arrangement with Professor BROWN.

Advanced Courses for Practicing Physicians

Opportunity for advanced work or for original investigations is offered in all of the laboratories to practicing physicians by special arrangement with the instructors.

SCHEDULE OF RECITATIONS

FIRST YEAR

HOUR TERM	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Fall	Histology	Histology	Histology	Histology	Histology	Histology
8:30						
Spring	Embryology	Anatomy		Anatomy	Embryology	Anatomy
Fall	Histology	Histology	Histology	Histology	Histology	Histology
9:45						
Spring	Embryology	Anatomy	Pharmacy	Anatomy	Embryology	Anatomy
Fall		Histology		Histology	Chem 10	Histology
10:40						
Spring		Anatomy		Anatomy	Chem. 10	Anatomy
Fall	Anatomy	Anatomy	Anatomy	Anatomy	Chem. 10	
11:35						
Spring		Anatomy		Anatomy	Chem. 10	Anatomy
Fall	Anatomy	Anatomy	Anatomy	Anatomy		
12:30						
Spring		Anatomy		Anatomy		Anatomy
Fall	Chem. 10	Zoology 2	Chem. 10	Zoology 2	Zoology 2	
2:30						
4:30						
Spring	Chem. 10	Pharmacy	Chem. 10	Pharmacy		

SECOND YEAR

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3
Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology	Pathology
Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3
Physiology	Physiology	Physiology	Physiology	Physiology	Pathology
Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology
Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology
		Bacteriology			Bacteriology
Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology
Physiology	Physiology	Physiology	Physiology	Physiology	
Pharma-cology	Pathology	Pathology	Pathology	Physiology	
Physiolog. Chem,	Bacteriology	Physiolog Chem.	Bacteriology	Physiolog. Chem.	
Pharma-cology	Ph. Diagnosis Minor Surg.	Hygiene	Ph. Diagnosis Minor Surg.	Physiology	

School of Pharmacy

FACULTY

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.
Edward Vernon Howell, A. B., Ph. G., Dean.

Edward Vernon Howell, A. B., Ph. G., *Professor of Pharmacy.*
John Grover Beard, Ph. G., *Instructor in Pharmacy.*

Henry Van Peters Wilson, Ph. D., *Professor of Zoology.*
William DeBerniere MacNider, M. D., *Professor of Pharmacology.*
Isaac Hall Manning, M. D., *Professor of Physiology*
Charles Holmes Herty, Ph. D., *Smith Professor of General and Industrial Chemistry.*
Andrew Henry Patterson, A. M., *Professor of Physics.*
William Chambers Coker, Ph. D., *Professor of Botany.*
Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*
James Munsie Bell, Ph. D., *Associate Professor of Physical Chemistry.*
Charles Scott Venable, A. M., *Instructor in Chemistry.*
Vivian Leroy Chrisler, A. M., *Instructor in Physics.*
Wesley Critz George, A. M., *Instructor in Zoology.*
William Battle Cobb, A. B., *Assistant in Botany.*
Carnie Blake Carter, *Assistant in Chemistry.*
Frank Davies Conroy, *Assistant in Chemistry.*
Clarence Ballew Hoke, *Assistant in Chemistry.*
Jackson Townsend, *Assistant in Chemistry.*
James Blaine Scarborough, *Assistant in Physics.*
Allyn Raymond Brownson, *Assistant in Zoology.*

FOUNDATION

The School of Pharmacy was founded in 1897 and was opened for students in September of that year. Its location at the seat of the University assures to the students the most modern scientific instruction with all the laboratory facilities of the undergraduate department, as well as the courses of instruction in the allied branches. These opportunities will meet the requirements of a large number of students who were compelled heretofore to obtain their pharmaceutical education in other states. Briefly stated, the advantages are as follows:

1. Thorough, careful, *individual* training.

2. The practical experience derived from active work in the laboratories.

3. Intimate association with the other departments of the University, to all of which the student of pharmacy has access, and the daily contact with students pursuing various branches of learning.

4. The use of the large library and reading room and the well equipped gymnasium.

5. The comparatively small cost at which a two years' course may be obtained.

6. The length of the course, which consists of two sessions of nine months each,—nearly a fourth longer than in many of the colleges of pharmacy.

The success of the students of this school in their examinations before the State boards has been very gratifying. Students of this School have been applicants before the State boards of Maryland, Pennsylvania, and North Carolina. None of the graduates of this School applying for license before the State boards has failed to pass the examination.

ADMISSION

Candidates for admission into the School of Pharmacy should present themselves on the same days and at the same hours with candidates for admission into the college. For the next academic year these days will be *Monday, Tuesday,* or *Wednesday, September 8, 9,* or *10, 1913,* and *Friday* or *Satur-*

day, January 2 or *3, 1914.* The session of the School of Pharmacy is of the same length as the College year, beginning *September 11, 1913,* and ending *June 3, 1914.*

Candidates for the degree of Ph. G. must be, on entering, at least 17 years old, and must have completed a high school course of study. They may however enter the first year course without those prerequisites.

The members of the School of Pharmacy enjoy all the privileges extended to other students in the University.

EXPENSES

The charges for each term are payable at the begining of the term. They are as follows:

Tuition	$30.00
Registration and incidental fees	12.50

There are additional fees as follows:

FIRST YEAR.

Chemistry 1 (each term)	$1.25
Physics A (each term)	1.00

SECOND YEAR.

Chemistry 3 (each term)	$5.00
Chemistry 9 (April and May)	1.50

The students of Pharmacy are entitled to the use of the gymnasium, the library, and reading room, and, in case of sickness, to medical attention and the use of the infirmary.

Good board is furnished at Commons Hall for $10.00 a month and at the University Inn for $15.00 a month. The rent of unfurnished rooms ranges from 75 cents to $2.75 a month. For each room is made a charge of $2.00 a month for electric light and heating.

PRIZES

The Bradham Prize, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

Prizes will be given:

1. For the best thesis.

2. For the best collection of native medicinal herbs.

3. For the best exhibit of chemical salts made by a second year student.

4. For the best work in the recognition of materia medica specimens.

5. To the student recognizing the largest number of pharmaceutical preparations.

6. To the student making the best general average during the first year of study.

EXAMINATIONS

Final examinations are held at the end of each term on the subjects embraced in the course.

Quizzes upon the different branches are held regularly. Specimen quizzes upon Materia Medica, Chemistry, and Pharmacy are held once a week, and consist in the recognition and correct writing of the official names of the specimens presented.

Students are required to make an average of 70 per cent. on all examinations and quizzes.

COURSES LEADING TO THE DEGREE OF GRADUATE OF PHARMACY

In order to be recommended for the degree of Graduate of Pharmacy (Ph. G.) the student must have completed with credit the course of study outlined below. The course extends over two sessions of nine months each. The student must have completed the work of both sessions in the School of Pharmacy of this University, or of one session (the second) here after one in some other recognized school of Pharmacy. He must obtain satisfactory marking in attendance, making a general average of 70 per cent. in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of Pharmacy, which he has prosecuted under the direction of the professor who assigned him the subject. The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis

shall be read before the Dean of the School, subject to criticism and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. He must also have had a practical experience of at least four years with some qualified pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School, and a certificate deposited with the Registrar on or before May 15. Students who have not had the full four years' experience will be permitted to stand examinations for graduation; but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the Pharmaceutical laboratory will count for one and only one.

FIRST YEAR.

Pharmacy 1 (5)
Pharmacy 4 (4)
Pharmacy 8 (3)
Pharmaceutical Botany (3) or
Elementary Physics A (3)
Chemistry 1 (3)

SECOND YEAR.

Pharmacy 2 (5)
Pharmacy 5 (8)
Materia Medica (5)
Materia Medica and Pharmacology (5)
Chemistry 3 (2)
Chemistry 9, April and May (3)

COURSES OF INSTRUCTION

Pharmacy

1. Theory and Practice of Pharmacy. This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary: metrology, comminution,

heat evaporation, distillation, sublimation; fusion, calcination, granulation, oxidation, reduction, etc.; solution of solids, liquids, and gases; deliquescence, efflorescence, etc.; colation, filtration, decolorization, clarification, precipitation, etc.; macration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodians, tinctures, wines, vinegars, and fluid extracts. Text: Remington, *Theory and Practice of Pharmacy.* First year. *Both terms, five hours.* Professor HOWELL.

2. Theory and Practice of Pharmacy: The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. Second year. *Both terms, five hours.* Professor HOWELL.

3. Pharmaceutical Botany and Materia Medica: This course takes up the study of the medicinal plants. It embraces Organography, Vegetable Histology, Morphology, and Plant Geography. Each plant is studied with reference to the part official in pharmacy, the constituents, action and uses, official preparations and assay of the drug. Instruction is also given in growing native plants and in mounting them for exhibition purposes. *Both terms, three hours.* Text-books: Bastins' *College Botany* and Ruddiman's *Materia Medica.* Mr. BEARD.

4. Operative Pharmacy: a practical course with laboratory work. First year. *Both terms, four hours.* Mr. BEARD.

5. Operative Pharmacy: a continuation of course 4. Second year. *Both terms, two hours.* Professor HOWELL.

Materia Medica and Pharmacology

1. Materia Medica: lectures on the geographical and botanical sources of drugs; descriptions and uses of the same, together with their preparation and doses. Opportunity is given the student to familiarize himself with most of the crude drugs and their preparations. Text: White and Wilcox. *Fall term, three hours.* Mr. BEARD.

2. Materia Medica and Pharmacology: This course is devoted to the study of the origin and constitution of remedial measures, their preparation and doses; and in particular, their physiological action and the indications for their rational use. Opportunity will be given to students to familiarize themselves with the more important crude drugs and their preparations. Instruction is given by means of lectures, recitations, and demonstrations. The lectures intended to accompany the work in Toxicology are given as a part of the course in Materia Medica. Professor MACNIDER.

8. Pharmacy. In this course, which deals with several branches of pharmacy, synonyms are first taken up and all common and practical names of plants and chemicals are studied. Along with synonyms, the specimens commonly seen in drug stores are shown and methods given for the recognition of each. This is followed by a detailed list of all terms descriptive of the therapeutic action of drugs.

A short course is given in pharmaceutical Latin. A student of this course will be taught to read and write correctly prescriptions in full Latin. In addition, instruction is given in the Latin prefixes and suffixes used to form the names of chemicals and galenicals.

The spring term is wholly taken up with a complete course in pharmaceutical arithmetic. Beginning with the metric system, the student is instructed in Alligation, Specific Gravity, Specific Volume, Percentage, Proportion, etc. Text-book: Sturmer's *Pharmaceutical Arithmetic. Both terms, three hours.* Mr. BEARD.

Physics

Elementary Physics (Physics A): the fundamental facts of Physics are studied with some special reference to heat and electricity. Text-book, lectures, and laboratory work. First year. *Both terms, three hours.* Mr. CHRISLER.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Chemistry

1. General Descriptive Chemistry: the elements are studied in a systematic manner; the laws governing their combination, and the compounds resulting, are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson and Henderson's *Elementary Study of Chemistry,* and Remsen's *Organic Chemistry,* supplemented by lectures and quizzes. First year. *Both terms; lectures, three hours; laboratory, one hour.* Professor HERTY and Messrs. VENABLE and CARTER.

3. Qualitative Analysis: laboratory work with lectures; the behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures with special reference to the detection of poisons and determination of the purity of drugs. Second year. *Both terms, two hours.* Professor WHEELER and Mr. HOKE.

9. Toxicology: laboratory work: the chemical alkaloids of poisons and their separations are studied in the laboratory. Text, Autenrieth and Warren's *Detection of Poisons. April and May, three hours.* Professor WHEELER and Mr. CONROY.

Laboratory fee, $1.50.

OPTIONAL COURSES

The following courses are not required of students in Pharmacy, but may be elected profitably.

Elementary Physiology

The study of Physiology is begun in the spring term of the first year, during which the physiology of digestion, the digestive glands, blood, respiration, metabolism, excretion, and animal heat are considered in lectures illustrated by experiments. The study is continued in the fall term of the second year by consideration of the physiology of the muscles and of the nervous system. During this term also the student learns the methods of experimental physiology by means of class work in the laboratory. Texts: *American Text Book,* Stewart, or Kirke. *Both terms, three hours.* Professor MacNider.

Zoology

Elements of Zoology: an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Parker. *Both terms, three hours.* Professor Wilson and Mr. George.

Botany

General Introduction to Systematic Botany: with special attention to medical plants; laboratory and field work, with recitations. *Spring term, three hours.* Professor Coker and Mr. Cobb.

Chemistry

Industrial Chemistry: lectures; the application of chemistry to the arts and industries. This course includes metallurgy, glass making, pottery, *(fall term);* food, clothing, building materials, explosives, photography, etc., *(spring term). Both terms, three hours.* Professor Herty.

Quantitative Analysis: laboratory work. This course is intended to give the student a thorough grounding in analytical methods and manipulations. *Three hours.* Associate Professor Bell.

Quantitative Analysis: laboratory work. The student in this course is led further into the study and practice of analytical methods. The work may take any special direction desired by him, fitting him to be an agricultural chemist, iron chemist, manufacturing chemist, physician, druggist, or teacher of chemistry. The spring term is given to research. *Five hours.* Professor HERTY.

Determinative Mineralogy: lectures with laboratory work. Dana's *Text-Book of Mineralogy. Both terms, two hours.* Mr. SMITH.

Bacteriology

The student learns by practical experience the methods of cultivating, staining, and identifying the principal bacteria, and their pathological significance is explained by lectures and demonstrations by inoculation of animals. In this way the chief pathogenic bacteria are studied in pure culture on the various media, after which the methods of obtaining pure culture from mixtures of bacteria are learned. The necessary manipulations are carried out by the students, who thus obtain a practical knowledge of the subject which can be gained in no other way. *Fall term, six hours.* Professor MACNIDER.

Students in Pharmacy have also the privilege of attending any of the regular academic courses.

PHARMACEUTICAL LABORATORY

OFFICERS.

EDWARD VERNON HOWELL, A. B., Ph. G., DIRECTOR and *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in the Pharmaceutical Laboratory.*

The rooms of the Pharmaceutical Laboratory are admirably adapted to this purpose. They are conveniently situated on the first floor, are well lighted, and well equipped with water,

electric lights, and gas. To each student is assigned a desk, provided with lock and key, and containing all the apparatus necessary for the every day work of the pharmacist. In the store room is kept a supply of materials for practical work, as well as the apparatus for the more complex operations. Ample space is provided for the work at the prescription counter, where practical instruction in the compounding and dispensing of prescriptions is given.

A small deposit fee is required to cover the cost of breakage of apparatus. At the end of the session this fee will be returned, less the amount of breakage.

OTHER LABORATORIES

The laboratories of Physics, Chemistry, and Biology are open to students in Pharmacy. These laboratories are all equipped with the most approved apparatus for experimentation and illustration.

READING ROOM AND LIBRARY

The School of Pharmacy is provided with a well selected library and with a reading room, inaugurated by the class of 1897, in which are filed a large number of medical and pharmaceutical journals.

In addition to these advantages, students of this department enjoy the privileges of the University reading room, in which are filed all the leading newspapers and magazines, and free access to the University Library, which numbers sixty-five thousand volumes and eighteen thousand pamphlets.

The Summer School

FACULTY AND OFFICERS

(1912)

Francis Preston Venable, Ph. D., D. Sc., LL. D., President.

Nathan Wilson Walker, A. B., Director.

Oscar Leach, Secretary.

Mrs. Clifton L. Whitaker, Matron Carr Building

Mrs. J. T. Yeargin, Matron Mary Ann Smith Building.

INSTRUCTORS

George Howe, Ph. D., *Professor of the Latin Language and Literature.*

Nathan Wilson Walker, A. B., *Professor of Secondary Education.*

Joseph Gregoire de Roulhac Hamilton, Ph. D., *Alumni Professor of History.*

Marvin Hendrix Stacy, A. M., *Professor of Civil Engineering.*

Andrew Henry Patterson, A. M., *Professor of Physics.*

Louis Round Wilson, Ph. D., *Associate Professor of Library Administration.*

Adolphe Vermont, A. M., *Superintendent of the Smithfield Graded Schools.*

Thomas Perrin Harrison, Ph. D., *Professor of English in the North Carolina College of Agriculture and Mechanic Arts.*

Miss Mary Goodwin Griggs, *Visiting Supervisor of the Prang Company, New York.*

Thomas James Wilson, Jr., Ph. D., *Associate Professor of Latin.*

Harry Woodburn Chase, Ph. D., *Professor of the Philosophy of Education.*

George McFarland McKie, A. M., *Associate Professor of Public Speaking.*

Miss Mary Owen Graham, *Supervising Teacher in the Training School of the North Carolina State Normal and Industrial College, Greensboro.*

Collier Cobb, A. M., *Professor of Geology.*

George Thaddeus Whitley, A. M., *Superintendent of the Clayton Graded Schools.*

Henry McGilbert Wagstaff, Ph. D., *Professor of History.*

James Finch Royster, Ph. D., *Professor of English.*

James Munsie Bell, Ph. D., *Associate Professor of Physical Chemistry.*

Henry Patrick Harding, A. B., *Principal of the Charlotte City High School.*

Vivian Leroy Chrisler, A. M., *Instructor in Physics.*

Edwin R. Jackson, B. S., *Expert in the Forest Service, U. S. Department of Agriculture.*

Karl Jansen, *Popular Lecturer and Entertainer.*

Mrs. Lenore A. Eldred, *Supervisor of Drawing in the City Schools of Birmingham, Ala.*

J. H. Woodruff, *Supervisor of Writing in the Public Schools of Indianapolis, Indiana.*

Miss May Alexander, *Supervisor of Writing in the City Schools of Asheville, N. C.*

Gustav Hagedorn, *Professor of Violin, Orchestral Instruments, and Instructor in Harmony, Counterpoint, in Meredith College, Raleigh, N. C.*

Elizabeth Burtt Hagedorn, *Professor of Piano in Meredith College, Raleigh, N. C.*

SPECIAL LECTURERS

Robert Diggs Wimberly Connor, *Secretary of the North Carolina Historical Commission.*

Dr. Watson S. Rankin, *Secretary of the North Carolina State Board of Health.*

Lautrec Cranmer Brogden, *State Supervisor of Rural Elementary Schools for North Carolina.*

Miss Minnie W. Leatherman, *Secretary of the North Carolina Library Commission.*

Joseph Addison Bivins, *State Supervisor of Teacher Training for North Carolina.*

Edwin R. Jackson, *Expert U. S. Forest Service.*

Charles De Garmo, Ph. D., *Professor of Education in Cornell University.*

PRELIMINARY ANNOUNCEMENT FOR 1913

The University Summer School for Teachers will open on Wednesday, June 11th, and continue in session for a term of six weeks, closing on Wednesday, July 23, 1913.

A strong Faculty of Specialists and successful Teachers chosen because of their recognized ability and their especial fitness.

Courses will be offered in Primary School Methods, the Common School Branches, Arithmetic, Algebra, Geometry, Trigonometry, Secondary Education, Educational Psychology, School Administration, English Grammar, Composition and Literature, History, Physics, Astronomy, Chemistry, Agriculture, Geography, Forestry, Latin, French, German, Drawing, Library Administration, and Public School Music. Special courses to meet the needs of all classes of Teachers.

No tuition fees charged teachers of the State or those preparing to become teachers. A nominal registration fee of five dollars admits to all courses. The University Library and Laboratories open to students of the Summer School without additional cost.

Board at Commons Hall and Lodging in the College Dormitories furnished at actual cost.

The earnest teacher or student who wishes to spend a part of the summer in quiet, intensive study, under competent instructors, will find here excellent opportunity.

A bulletin containing detailed information as to courses of study, instructors, expenses, etc., will be ready in March. This will be sent, upon application, to anyone interested.

PART FIVE

THE UNIVERSITY LIBRARY
PUBLIC LECTURES
THE BYNUM GYMNASIUM
LABORATORIES
UNIVERSITY ORGANIZATIONS

The University Library

OFFICERS

Louis Round Wilson, Ph. D., *Librarian.*
Charles Lee Raper, Ph. D., *Committeeman.*
William Chambers Coker, Ph. D., *Committeeman.*
William Morton Dey, Ph. D., *Committeeman.*
James Finch Royster, Ph. D., *Committeeman.*
Nan Spotswood Strudwick, *Assistant Librarian.*
Thomas Michael Ramsaur, *Assistant in the Library.*
George Picket Wilson, *Assistant in the Library.*
Edgar Ralph Rankin, *Assistant in the Library.*
John Robert Gentry, *Assistant in the Library.*
Jesse Forbes Pugh, *Assistant in the Library.*

The University Library contained at the end of the academic year 1911-1912 sixty-five thousand and twenty-seven volumes and about eighteen thousand seven hundred pamphlets. This collection has been largely classified and catalogued according to the Dewey, or decimal system, and its contents have been rendered easily accessible by means of a thorough dictionary author, title, and subject card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Committee, and Professors in charge of Departments with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is about thirty-seven hundred volumes, all of which are carefully classified and catalogued as they are received.

The Librarian and those assisting in the Library are constantly in attendance to give help in any line of research or reading. A special collection of dictionaries, encyclopedias, almanacs, handbooks, atlases, concordances, and other reference books is provided for general use in the reference room.

In addition to the resources of the general reference room, the Library places at the disposal of students for reference purposes a collection of ten thousand bound periodicals covering all fields of general, technical, and professional information. A great number of the sets belonging to this collection are complete from their beginning, and consequently completely cover the history and progress of the subjects of which they treat. In this way students pursuing general academic and special technical or professional courses have access to the best American, English, and Continental periodical literature to be found on their subjects. The articles contained in these files are fully indexed in special periodical indexes and are referred to with ease.

Eight hundred and thirty-six current periodicals, transactions of literary, scientific, historical and other societies, university studies, serial publications, and a half hundred daily and weekly newspapers, continuing and supplementing the bound sets, are subscribed for and received annually. They are to be found in the general periodical room and in the seminars, professional schools, and scientific laboratories, where they can be consulted in the course of daily work.

As the Library is a depository for the publications of the United States government, it contains more than seven thousand volumes of material especially valuable for reference in debate and in the study of social and political science, useful arts, and the natural sciences. This collection is thoroughly indexed and its contents are easily consulted.

Five special seminar rooms have been equipped in the general Library to facilitate advanced work in English and German Literatures and Languages, Greek and Latin Literatures and Languages, the Romance Literatures and Languages, History, and North Carolina History. Special scientific and professional collections are to be found in the libraries or seminars belonging to the departments in which such instruction is given. These collections are under the supervision of the instructors in the respective departments and the Librarian, and aid is given students in the use of books relating to their work.

The main Library is housed in a commodious modern library building erected in 1907, and represents an expenditure for construction and equipment of $66,500.00. The reference, current periodical, and seminar rooms in the main Library are

large, well lighted, and have table and seating capacity for two hundred students at one time.

The stack room contains two levels of steel shelving with stairway and glass mezzanine floor between and, with its present complement of shelving, capacity for seventy thousand volumes. Its ultimate capacity is one hundred and five thousand volumes, which, taken with that of the other parts of the building, totals one hundred and seventy-five thousand volumes.

Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of each year, and to any student at any time who may request it. Instruction in a regular University class is also given to students who are preparing for positions in school and public libraries with a view to making them more efficient in the discharge of their special duties.

The Library is open on week days from 8:30 A. M. to 1:15 P. M., and from 2:00 P. M., to 5:00 P. M.; on week day evenings, Saturday excepted, from 7:00 P. M. to 9:30 P. M.; on Sunday, from 2:30 P. M. to 4:30 P. M.; on University holidays from 3:00 P. M. to 4:00 P. M.

The following rules are considered necessary for the proper use of the Library. They will be enforced with strict impartiality.

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of the regular Library fee.

The Library fee is four dollars a year, two dollars a term, or fifty cents a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed with exact regularity at the rate of five cents per day. Books borrowed for debate or for class use may be kept out from 9 P. M. until 10 A. M. of the following day. After that hour they are subject to a fine at the rate of

five cents per hour. The date on the pocket on fly-leaf of book is sufficient notice when the book is due.

Failure to pay fines within three weeks from the time they are due will debar the delinquent from further use of the Library.

Books from the reference room must remain in the Library during Library hours. They may be loaned only at the discretion of the Librarian.

Magazines must not be removed from the Library until they are bound. If removed they are subject to the regulations applying to debate books.

Mutilation of books or magazines, or defacement by writing in them, must be paid for by the purchase of a new copy.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

The John Calvin McNair Lectures

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to $500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures " shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God from nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL. D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D. D., LL. D., of Princeton Theological Seminary, New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ.
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph. D., M. D., LL. D., of Leland Stanford, Jr., University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D. D., LL. D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

The lectures for 1912 were delivered by President Arthur Twining Hadley, A. M., LL. D., of Yale University. The three lectures on the general subject, Some Tendencies of Modern Philosophic Thought, were:

1. Changed Conceptions of Science.
2. New Views of Ethics and of Politics.
3. The Spiritual Basis of Modern Literature.

The lectures for 1913 were delivered by Professor Francis G. Peabody, A. M., D. D., LL. D., of Harvard University. The three lectures were:

1. The Practicability of the Christian Life.
2. The Christian Life and the Modern Home.
3. The Christian Life and Modern Business.

The lectures for 1914 will be delivered by President George Edgar Vincent, Ph. D., LL. D., of the University of Minnesota.

William Preston Bynum, Jr., Gymnasium

Robert Baker Lawson, M. D., *Director.*
Thomas Spurgeon Hughes, *Assistant.*
Carl Duffy Taylor, *Assistant.*

The William Preston Bynum, Jr., Gymnasium, the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893, is a handsome, two-storied brick building, furnished with modern apparatus, swimming pool, baths, lockers, and running track. It contains also the trophy room and the office of the Instructor in Physical Training.

Exercise in the Gymnasium is required three hours a week of all the students in college except Seniors. A thorough physical examination of each student is made in the fall, and, in case students desire it, another in the spring. The measurements are indicated in a Prescription of Exercise pamphlet and are furnished to the students free of charge in the fall term. This book contains directions for the developing of every part of the body, as well as suggestions on hygiene and personal care of the body; it is free from technicalities and confusing terms. Too much importance cannot be attached to the physical examination, since it enables the student to work intelligently and to economize his time. The physical examination is designed to aid the student by pointing out defects, and causing him to direct his efforts toward the correction of them.

Laboratories and Museums

THE PHYSICAL LABORATORIES

Andrew Henry Patterson, A. M., Director and *Professor of Physics.*

Parker Hayward Daggett, S. B., *Associate Professor of Electrical Engineering.*

Vivian Leroy Chrisler, A. M., *Instructor in Physics.*

John Madison Labberton, *Assistant in Electrical Engineering.*

James Blaine Scarborough, *Assistant in Physics.*

The Physical Laboratory occupies the eastern half of the main floor and almost the whole of the basement floor of the Alumni Building, amounting to about eight thousand feet of floor space.

The main floor is divided into two lecture rooms, an apparatus room, laboratory for students in the general course, Physics 1, and a laboratory for X-ray and photometric work.

In the rooms of the basement are located the dynamos, motors, electrical laboratory, storage battery, and the workshop for wood and metal.

The Electrical Laboratory is equipped with standard types of electrical machines: dynamos, motors, transformers, meters, switchboard, storage battery, and the usual accessories, needed for practical instruction in electrical engineering.

The electric light, central heating, and waterworks plants constitute valuable adjuncts to the laboratory. For work in practical testing there are available a 35 H. P. Ball engine, a 20 H. P. slide-valve engine, two types of steam pumps, two gasoline engines, with calorimeters, meters, thermometers, Orsat apparatus, and other accessory apparatus necessary for making complete tests on power plants. The central power plant of the University also contains a 115 H. P. Ball and Wood engine, directly connected to a Crocker-Wheeler 3-phase generator; a 70 H. P. Skinner engine with direct-connected

General Electric 3-phase generator; a 50 H. P. De Laval steam turbine; a D'Olier four stage centrifugal pump, direct-connected to a 75 H. P., 3-phase Crocker-Wheeler motor, and all necessary accessories.

The old storage battery proving inadequate for the growing needs of this and other scientific departments, a new one was installed in September, 1910, consisting of sixty type E-13 cells purchased from the Electric Storage Battery Company, of Philadelphia. This installation provides a direct current of 120 volts available for use at all times.

CHEMISTRY HALL

Charles Holmes Herty, Ph. D., Director and *Smith Professor of General and Industrial Chemistry.*

Alvin Sawyer Wheeler, Ph. D., *Professor of Organic Chemistry.*

James Munsie Bell, Ph. D., *Associate Professor of Physical Chemistry.*

Charles Scott Venable, A. M., *Instructor in Chemistry.*

James Talmage Dobbins, A. M., *Le Doux Fellow in Chemistry.*

William Lewis Jeffries, A. M., *Toch Fellow in Chemistry.*

Burke Haywood Knight, A. B., *Fellow in Technical Chemistry.*

Lucius Eugene Stacy, Jr., A. B., *Fellow in Organic Chemistry.*

Paul Roby Bryan, *Assistant in Chemistry.*

Carnie Blake Carter, *Assistant in Chemistry.*

Frank Davies Conroy, *Assistant in Chemistry.*

Clarence Ballew Hoke, *Assistant in Chemistry.*

Jackson Townsend, *Assistant in Chemistry.*

The overcrowded condition of the laboratories and lecture room in Person Hall, and the unsatisfactory ventilation of the laboratories, made urgent the need for a larger and better arranged building for the Department of Chemistry. These facts, together with the complete plans for a new building, were laid before the Legislature in 1905 and an appropriation of $50,000

asked. The appropriation was voted, and in a short while the work of construction was under way.

The new building, Chemistry Hall, is located east of Alumni Hall and north of the New East building, facing west. By the selection of this location good water pressure is assured for all of the laboratories in the building.

The outer walls are of salt and pepper brick laid with black mortar.

The main building, 120 x 68 x 48, comprises a first floor, a second floor, and a commodious basement. Adjoining this main building and to the rear of the center is the lecture room, 41 x 62 x 22.

To the right on entering the main building are the office and the private laboratory of the Director, the department library, and a small laboratory: to the left are the office and private laboratory of the Professor of Organic Chemistry, a large laboratory for organic chemistry, containing locker desks for twenty-four students, and a combustion room.

On the rear or east side of the first floor are the laboratories for organic chemistry for medical students (thirty-two desks), and a private laboratory, advanced quantitative analysis (twenty-four desks), and a research laboratory (six desks).

On the second floor are the laboratories for general chemistry (sixty-six desks), qualitative analysis (sixty desks), physical chemistry (eight desks), electro-chemistry (eight desks), a research laboratory (sixteen desks), a laboratory for quantitative analysis (forty-eight desks), a fume room, and a small lecture room. At the ends of the corridor on the second floor are a balance room, preparation room, and a dark room for spectroscopic work.

In the basement are the assay laboratory, rooms for gas machine, electric furnace, technical chemistry, constant temperature, a photographic dark room, a carpenter-shop, stock room for heavy chemicals, and a large stock room for chemicals and apparatus. From this stock room material is supplied to each floor of the building by an elevator.

Each laboratory is furnished with ample fume closets for the removal of noxious gases, while pivoted window sash insure proper ventilation of the rooms.

The entire building is heated by hot water from the central system of the University.

The main entrance hall leads direct to the lecture room, which is well lighted by high arched windows and has a seating capacity of two hundred, which can be increased somewhat as need requires. To the rear of the lecture room are a preparation room, and a museum for specimens of typical chemicals, mineral, and products illustrating the various phases of chemical industries. Above these two last rooms is a small room for filing charts, diagrams, etc., used in illustrating lectures.

The recently installed storage battery in the Department of Physics furnishes ample current for stereopticon purposes and for motors.

THE BIOLOGICAL LABORATORY

Henry Van Peters Wilson, Ph. D., Director, and *Professor of Zoology.*

William Chambers Coker, Ph. D., *Professor of Botany.*

Wesley Critz George, A. M., *Instructor in Zoology.*

Allyn Raymond Brownson, *Assistant in Zoology.*

William Battle Cobb, A. B., *Assistant in Botany.*

The Biological Laboratory, Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper and salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third chamber, which extends out over the wings, forming spacious air chambers. The building faces north and south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lit with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens. The west wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the east wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers and is lit on three sides with twenty windows. The main building on this floor includes private work rooms for the professors of zoology and botany, two store rooms, and a library. On the third floor of the main body is a photographic studio with windows on the north side extending to the floor, and with skylights. The building is provided with electric lights and is heated with hot water. The furnace and fuel rooms are in the basement. Here also are fire proof incubator room, a room for micro-photography with adjoining dark room, janitor's shop, and rooms for the storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants for experimetal work in botany and zoology. An elevator connects the basement with all floors.

THE GEOLOGICAL LABORATORY AND MUSEUM

Collier Cobb, A. M., Director and *Professor of Geology and Mineralogy.*

Joseph Hyde Pratt, Ph. D., *State Geologist and Professor of Economic Geology.*

John Eliphalet Smith, M. S., *Instructor in Geology.*

Robert Campbell Jurney, *Assistant in Geology.*

The Geological Laboratory occupies the first floor of the New East building. In addition to a lecture room with a seating capacity of about ninety, there is a large laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure. The laboratory is furnished with two petrographical microscopes, with microscopes for soil study, and with apparatus for the slicing and polishing of rocks. Microscopic slides have been made of most of the specimens from North Carolina; and the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the

geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coal, and various products illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka, and Santa Fe Railroad is included in the collection. Valuable additions have been made to the collection of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. A small collection of tertiary type fossils from Florida, the gift of Mr. Joseph Wilcox, of Philadelphia, is the most recent addition to the paleontological collection. The collection illustrating economic geology has been largely increased.

The department library, which occupies a room adjoining the exhibition room, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

University Organizations

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES

The Dialectic and Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University, and they have shown remarkable power in developing character as well as in training the intellect. They offer facilities for practice in debate, oratory, declamation, and essay writing; and their members become practically familiar with parliamentary law and usage.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members. Meetings are held by each society every Saturday evening during the college year, admission being confined to members. Public contests in debate between the two societies are conducted twice a year, and in addition to these, there is a system of intercollegiate debates. On Monday evening before Commencement the Inter-Society banquet is held, after which each society has its annual reunion. On Tuesday evening preceding Commencement day four representatives elected from the two societies have a public competition in debate, and a prize is awarded to the successful competitors.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society. Although membership in the societies is entirely optional, yet it is earnestly recommended by the faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

Edward Vernon Howell, Ph. G., *President.*
Parker Haywood Daggett, S. B., *Vice-President.*
Francis Preston Venable, Ph. D., D. Sc., LL. D., *Permanent Secretary and Treasurer.*
James Munsie Bell, Ph. D., *Recording Secretary.*

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A Journal, which is the official organ of the North Carolina Academy of Science, is issued quarterly. The object of the Society is to encourage scientific research and to record such matters as pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are ordinarily held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the class room by hearing, reading, and discussing papers on scientific subjects.

The Journal is in a measure a bulletin of the scientific laboratories of the University, and contains many articles written by research students. It is now in the twenty-seventh year. The volumes already issued contain twenty-five hundred pages. By the exchange of the Journal with more than three hundred scientific journals and periodicals, over ten thousand books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

Joseph Gregoire deRoulhac Hamilton, Ph. D., *President.*
Marcus Cicero Stephens Noble, *Vice-President.*
Ellis Merton Coulter, *Secretary.*
Joseph Gregoire deRoulhac Hamilton, Ph. D., *Permanent Secretary.*

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from

Raleigh to Chapel Hill. Under his leadership it became the centre of historical work in the State and the medium of many notable contributions to the history of the State. On March 22, 1875, through the activity of Kemp Plummer Battle, LL. D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files, coins, and other subjects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation. To this end meetings are held monthly in the History lecture room, at which papers, based on original research, are read and discussed. All members of the University are eligible for membership.

THE PHILOLOGICAL CLUB

William Morton Dey, Ph. D., *President.*
Oliver Towles, Ph. D., *Vice-President.*
Wilbur High Royster, A. M., *Secretary.*
Louis Round Wilson, Ph. D., *Permanent Secretary and Treasurer.*

The Philological Club meets on the first Tuesday evening of each month during the college year. Its membership consists of the instructors and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in philology and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed. The Club publishes a journal of two issues a year whose contents are contributed by the members. All persons interested in the work of the Club are invited to attend its meetings.

DER DEUTSCHE VEREIN

Walter Dallam Toy, M. A., *President.*
Kent James Brown, Ph. D., *Vice-President.*

The Verein was organized with a view of stimulating interest among the officers and students of the University in all

topics pertaining to German life. Weekly meetings are held throughout the year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, art, and politics are discussed. An effort is made also to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

William Morton Dey, Ph. D., *President.*
Oliver Towles, Ph. D., *Permanent Secretary.*

Le Cercle Francais holds weekly meetings at which topics of general interest pertaining to French literature, and French life, manners, and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

MUSICAL ASSOCIATION

Douglas Le Telle Rights, *President.*
Harry Murden Stubbs, *Vice-President.*
John Speight Hunter, *Business Manager.*
Robert Obediah Huffman, *Secretary and Treasurer.*

The aim of the association is to foster the love of music and to afford opportunity of instruction to those interested in music. The organization consists of an orchestra, a brass band, a mandolin and a glee club, which are representative of the musical talent of the University.

THE UNIVERSITY COUNCIL

Walter Stokes, Jr., *President*, President of the Senior Class.
D. H. Carlton, *Secretary*, President of the Junior Class.

PHILIP WOOLLCOTT, President of the Sophomore Class.
J. N. TOLAR, President of the Second Year Medical Class.
L. H. WINSTEAD, President of the Second Year Pharmacy Class.
FRANK GRAHAM, Representative from the Law Class.
W. G. HARRY, (elected by Council) Representative from the Senior Class.
A. L. HAMILTON, Representative from the Student Body at Large.

The University Council is the head of the honor system. It is the concrete expression of the moral University, the student instrument of self-government. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines the matter, finds the facts in the case, and decides upon the justice of that feeling. If the student is found guilty of conduct unworthy of a University man, he is requested by the Council to leave the University. For example, if it becomes known among the students that a man has been guilty of cheating upon examination, he is disgraced in the eyes of the University community; and the students without hesitation, through their organ of expression, the Council, demand that he forthwith leave the University. The student sentiment expresses itself in this way not only in case of so flagrant a violation of the honor system as cheating, but also in cases of continued drunkenness, gambling, and such other forms of misconduct. Thus it can be seen that the student body has an effective system of self-government, that the motive power of this self-government is student sentiment, and that the organ of expression of this sentiment is the University Council.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

DOUGLAS L. RIGHTS, *President.*
E. M. COULTER, *Recording Secretary.*
A. L. M. WIGGINS, *Treasurer.*
EDMUND P. HALL, A. B., *General Secretary.*

The University Young Men's Christian Association, with its centrally located House as a meeting place and home for the students; with its work for new students; with its social receptions; with its annually published handbook and directory; with its lyceum course; with its support of eight Sunday schools; with its self-help department; with its semi-weekly religious meetings; with its ministerial and missionary clubs; with its large enrollment of men in Bible and mission study; the Young Men's Christian Association through these channels is an organized agency for usefulness and an aggressive force for morality in the University life.

However, "the Young Men's Christian Association may not be viewed," says a member of the faculty, "merely as an institution for the conduct of mission work, Bible study and religious meetings. Besides these excellent works which it shares with the churches, it is unique as a democratic student organization wholly given up to solving problems of right living. Its energy, sanity, and devotion have made it the most prominent and efficient organization in the college and the most beneficent influence in the life of the college community."

Bible Courses

1. Studies in the Life of Christ (Bosworth). Leaders: T. C. Boushall, E. M. Coulter, W. P. Fuller, J. R. Gentry, J. E. Holmes, W. W. Rankin, E. L. Tilley, J. E. Turlington, B. M. Walton, J. O. Graham, E. P. Hall.
2. New Studies in Acts (Bosworth). Leaders: R. C. Cox, E. W. Joyner, D. L. Rights, R. C. Spence, H. S. Willis, P. Woollcott.
3. Normal Class Leader: Secretary E. P. Hall.

Mission Courses

The Decisive Hour in Christian Mission.
The Challenge of the City, by Professor A. H. Patterson.
The Chinese Revolution.

Gifts

During the past year the following gifts have been made to the University:

An unusually large number of gifts—2421 volumes—were received during the year by the Library. Of these special mention is here made of the collection given by Cross Creek Lodge, I. O. O. F., of Fayetteville, numbering 1000 volumes; by Hon. Richard H. Battle, numbering 577 volumes; by the family of Edward Graham Daves, numbering 500 volumes; by Mrs. J. L. Bridgers, numbering 269 volumes; by Mr. W. Stamps Howard, numbering 29 volumes; by Mrs. Julia Graves, numbering 50 volumes; and a single volume given by the University of Pennsylvania, the volume being exceedingly rare and presented to the Medical Library of the University upon the dedication of Caldwell Hall.

The Laboratory for General Zoology and General Botany in Davie Hall has been equipped with handsome oak work tables through the generosity of Mr. Geo. Stephens, an alumnus and trustee of the University.

The department of Zoology has received from Mr. W. H. Kibler, an alumnus, a collection illustrating the embryology of fishes.

A gift has been received from the General Chemical Company, of New York City, of a large collection of raw products, manufactured products from the same, and a collection of chemically pure substances for the chemical museum.

The William Simpson Pharmaceutical Society was presented with a number of volumes of the Proceedings of the North Carolina Pharmaceutical Association by Mrs. Charles McKimmon, of Raleigh, N. C., in memory of her father.

PART SIX

COMMENCEMENT
LIST OF STUDENTS
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One Hundred and Seventeenth Commencement

Saturday, June 1

Senior Speakers

Frank Pendleton Barker,
James Manley Daniel, Jr.,
Cyrus Richard Wharton
Henry Ward Doub.

Sunday, June 2

Baccalaureate Sermon
The Right Reverend Arthur Selden Lloyd, D. D.

Sermon Before the Young Men's Christian Association
The Reverend Charles Edward Maddry

Monday, June 3

Alumni Exercises

Reunions of the Classes 1882, 1887, 1892, 1907

The Alumni Address
Herman Harrell Horne, Ph. D.

The Debate by Representatives from the Dialectic and Philanthropic Literary Societies

Dialectic	*Philanthropic*
Robert Waldon Isley	Hubert Conner Petteway
John Carroll Busby	Walter Raleigh Petteway

Tuesday, June 4, Commencement Day

The Commencement Address
Edwin Anderson Alderman, D. C. L., LL. D.

DEGREES IN COURSE

Bachelors of Arts

Cleaton Otis Armstrong
Walter Dorsey Barbee
Frank Pendleton Barker
Emmett Hargrove Bellamy
Robert Willis Bobbitt
Caleb Kight Burgess
Clyde Lucius Cates
William Preston Cline
William Battle Cobb
Charles Spurgeon Cook
Charles Fowler Cowell
James Rowland Craven
Henry Cleveland Craver
William Jesse Crutchfield
James Manley Daniel, Jr.
Beecher Tate Denton
Henry Ward Doub
Frederick Blount Drane
William White Falkener
James Paull Fenner
Alonzo Dillard Folger
Robert Alexander Freeman
Samuel Mallette Gattis, Jr.
Alexander Hawkins Graham
Augustus Washington Graham, Jr.
William Graves
Price Henderson Gwynn, Jr.
John Brevard Halliburton
Robert March Hanes
Haines Hilsman Hargrett
Vance Henry
Carlisle Higgins
Angus James Hodgin
Frank Bruce Hooker
Frederick William Hossfeld, Jr.
William Emil Hossfeld
Blake Elliott Isley
Fairley Patterson James
Clarence Walton Johnson
Leslie Newcurk Johnston
James Conrad Lanier, Jr.
Jesse Cleveland Lassiter
John Clegg Lockhart
Joel Jenkins McAden
Monroe Anderson McIver
John Duncan McLean
Henry Burwell Marrow
William Peter Moore
Lawrence Nelson Morgan
James Ward Morris, Jr.
David Reid Murchison
Clarence Edward Norman
James Laurence Orr
Samuel Green Parker
Earl Victor Patterson
James Dickson Phillips
Columbus Washington Eagles Pittman.
Thomas Moore Price
Cary Perry Quincy
James Hall Rand
Hubert Roy Ray
James Thaddeus Reece
Charles Abram Roberson
William White Rogers
Thomas Sampson Royster
Howard Bently Shofner
Jesse Richardson Sloan
Lucius Eugene Stacy
Brevard Doty Stevenson
Claude Edward Teague
Robert Linn Van Poole
Lingoh Wang
Cyrus Richard Wharton
John Clark Whitaker
Robert Watson Winston, Jr.

Bachelors of Science

Walter Carter
John Burton Clingman
John Fox Kendrick
Robert Clay McLean
Henry Lynch Parish, Jr.
Thomas Bog Slade, Jr.
Charles Randolph Thomas, Jr.
Thaddeus Earl Wilkerson, Jr.

Bachelors of Laws

Baxter Lloyd Baker
Edwin Thomas Cansler, Jr.
Lennox Polk McLendon

Graduates in Pharmacy

Kelly Edwin Bennett
Alexander Grady Webb
Jefferson Davis Whitehead, Jr.

Masters of Arts

John Napoleon Daily
James Talmage Dobbins
Theophilus Randolph Eagles
Wesley Critz George
John Warton Harris
William Lewis Jeffries
John Archibald McKay
Earl Victor Patterson
William Walker Rankin, Jr.
Hubert Roy Ray
William Rena Thomas
John Elliott Wood

Master of Science

Charles Wilson Willard

HONORARY DEGREES

Doctor of Laws

William Walton Kitchin

MEDALS, PRIZES AND FELLOWSHIPS

The William Cain Medal in Mathematics: J. B. Scarborough.
The Eben Alexander Prize in Greek: R. O. Huffman.
The Worth Prize in Philosophy: W. W. Rogers.
The Early English Text Society Prize: P. H. Gwynn, Jr.
The Henry R. Bryan Prize in Law: L. P. McLendon.
Prizes in N. C. Colonial History: C. S. Cooke, L. N. Morgan.
The Toch Fellowship in Chemistry: W. L. Jeffries.
The Babbitt Scholarship in Chemistry: V. A. Coulter.

The Le Doux Fellowship in Chemistry: J. T. Dobbins.

Fellowship in Chemistry: A. L. Feild.

The W. J. Bryan Prize in Political Science: J. C. Lockhart.

The Ben Smith Preston Cup: J. L. Orr.

The Bingham Prize: J. C. Busby.

The Freshman Prize in English: W. P. Fuller.

The Mangum Medal: F. P. Barker.

Elected to membership in the *Phi Beta Kappa Society*, 1912: R. O. Huffman, V. A. Coulter, G. L. Carrington, R. C. Jurney, F. H. Kennedy, W. A. Kirksey, J. M. Labberton, F. W. Morrison, J. L. Phillips, W. N. Post, D. L. Rights, J. B. Scarborough, J. Townsend.

CERTIFICATES

Civil Engineering: J. B. Clingman, C. R. Thomas, Jr.

Economics: L. Wang.

Education: C. L. Cates.

Electrical Engineering: Walter Carter, R. C. McLean, H. L. Parish, Jr., T. B. Slade, Jr.

English: P. H. Gwynn, Jr., L. N. Morgan, B. D. Stephenson.

French: B. T. Denton, J. H. Rand, W. R. Thomas.

History: C. S. Cooke.

Latin: R. W. Bobbitt, P. H. Gwynn, Jr., J. C. Lanier, Jr., W. W. Rogers, T. S. Royster.

Zoology: W. B. Cobb, J. W. Harris.

Students (1912-1913)

Graduates

NAME — YEAR — RESIDENCE

Cobb, William Battle, *First,* Chapel Hill.
A. B., 1912. Botany, Geology, German, Candidate for A. M.

Cox, Rufus Carson, *First,* Liberty.
Ph. B., Elon College, 1903. Education, English, History. Candidate for A. M.

Dobbins, James Talmage, *Second,* Yadkinville.
A. B., 1911, A. M., 1912. Chemistry, Physics, Geology. Candidate for Ph. D.

Faires, Rosabelle Simonton, *Fourth,* Chapel Hill.
A. M., 1909. German.

George, Wesley Critz, *Second,* Elkin.
A. B., 1911, A. M., 1912. Zoology, Physiology, Bacteriology. Candidate for Ph. D.

Graham, James Otto, *First,* Lake City, S. C.
B. S., Clemson College, 1909. Chemistry, Geology, Physics. Candidate for S. M.

Gwynn, Price Henderson, Jr., *First,* Leaksville.
A. B., 1912. Economics, Latin, Philosophy. Candidate for A. M.

Henry, George Kenneth Grant, *Fifth,* Chapel Hill.
A. B., 1900, A. M., 1904, Hamilton College. Latin, Greek, French. Candidate for Ph. D.

Ingram, Mitchell Ray, *First,* Taylorsville.
Economics, French, Education. Candidate for A. B. and A. M.

Jeffries, William Lewis, *First,* Edgefield, S. C.
A. B., 1910, A. M., 1912. Chemistry, Physics, Geology. Candidate for Ph. D.

Knight, Burke Haywood, *Second,* Williamston.
A. B., 1911. Chemistry, Zoology, English. Candidate for A. M.

Lasley, John Wayne, Jr., *Second,* Burlington.
A. B., 1910, A. M., 1911. Mathematics. Candidate for Ph. D.

McLendon, Lennox Polk, *First,* Wadesboro.
B. S., 1910, North Carolina College of Agriculture and the Mechanic Arts, LL. B., 1912. English, Philosophy, Economics. Candidate for A. M.

McMillan, Thomas Ellwood, *First,* Ben Franklin, Tex.
A. B., 1911, East Texas Normal College. History, Economics, Education. Candidate for A. M.

Miller, Herbert Craig, *First,* Newton.
A. B., 1910, Lenoir College. Education, English, Economics. Candidate for A. M.

Morrison, Fred Wilson, *First,* Spencer.
English, Greek, Mathematics. Candidate for A. B. and A. M.

Rankin, William Walter, Jr., *Second,* Charlotte.
B. E., 1904, North Carolina College of Agriculture and the Mechanic Arts, A. M., 1912. Mathematics, Physics, Education. Candidate for Ph. D.

Royster, James Hunt, *First,* Townsville.
Education, Economics, Physics. Candidate for A. B. and A. M.

Royster, Thomas Sampson, *First,* Townsville.
A. B., 1912. Physics, Chemistry, Latin. Candidate for A. M.

Stacy, Lucius Eugene, Jr., *First,* Shelby.
A. B., 1912. Chemistry, Economics, Physics. Candidate for A. M.

Stanbury, Walker Adair, *Second,* Chapel Hill.
A. B., 1908, Trinity College. Philosophy.

Starr, Homer Worthington, *Second,* Chapel Hill.
B. A., 1900, Harvard, M. A., 1901, The University of the South. English, Economics, History. Candidate for Ph. D.

Venable, Charles Scott, *Second,* Chapel Hill.
A. B., 1910, A. M., 1911. Chemistry. Candidate for Ph. D.

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Senior Class

Alderman, Ernest Hamlin,	Arts,	Greensboro.
Axley, Lowry,	Arts,	Murphy.
Bagwell, James Edgar,	Arts,	Loray.
Barbour, Swade Emmett,	Science,	Clayton.
Basnight, Stein Hughes,	Arts,	Newbern.
Bennett, Paul Archer,	Arts,	Winston-Salem.
Berry, Margaret Kollock,	Arts,	Chapel Hill.
B. S., 1912, Normal and Industrial College of North Carolina.		
Bivens, Samuel Robert,	Arts,	Monroe.
Blalock, David Remus,	Arts,	Rougemont.
Boushall, Joseph Dozier, Jr.,	Arts,	Raleigh.
Bryan, Paul Roby,	Science,	Goldsboro.
Busby, John Carroll,	Arts,	Salisbury.
Caldwell, Joseph Yongue,	Arts,	Statesville.
Carmichael, George,	Arts,	Wilmington.
Carrington, George Lunsford,	Arts,	Durham.
Carter, Carnie Blake,	Science,	Morganton.
Carter, James Washington,	Arts,	Morganton.
Coulter, Ellis Merton	Arts,	Connelly Springs
Coulter, Victor Aldine,	Science,	Newton.
Craig, Gillam,	Arts,	Monroe.
Ellington, Kenneth Raynor,	Law,	Clayton.
Euless, Fields Lilborn,	Arts,	Bell Buckle, Tenn.
Gray, Robert Frederick,	Arts,	Wadesboro.
Hamilton, Alvah L.,	Arts,	Atlantic.
Harry, Woodfin Grady,	Arts,	Grover.
Hatcher, Martin Armstead,	Arts,	Rose Hill.
Higdon, Frederick Huffman,	Arts,	Higdonville .
Hoke, Clarence Ballew,	Science,	Lenoir.
Hoover, Troy Jay,	Arts,	High Point.
Huffman, Robert Obediah,	Arts,	Morganton
Hunter, John Speight,	Arts,	Greensboro.
Ingram, Mitchell Ray,	Arts,	Taylorsvile.
Isley, Robert Waldon,	Arts,	Liberty.

Joyner, Elisha Wiley,	Arts,	Nashville.
Jurney, Robert Campbell,	Arts,	Winston-Salem.
Kasey, Watson,	Arts,	Houston, Va.
Kelly, James Clyde,	Arts,	Carthage.
Kennedy, Frank Hunter,	Arts,	Houstonville.
Kirksey, William Albert,	Arts,	Morganton.
Labberton, John Madison,	Science,	Winston-Salem.
McCorkle, Matthew Locke,	Arts,	Newton.
B. S., 1912, Catawba College.		
McIver, John Wesley,	Science,	Sanford.
McKay, Arnold Artemus,	Arts,	Maxton.
Marks, Albert Rosenthal,	Arts,	Newbern.
Mebane, Banks Holt,	Arts,	Spray.
Morrison, Fred Wilson,	Arts,	Spencer.
Norwood, Thomas Hart,	Arts,	Goldsboro.
Perrett, Virgil Addison,	Arts,	Whitsett.
Petteway, Hurbert Connor,	Arts,	Brooksville, Fla.
Petteway, Walter Raleigh,	Arts,	Tampa, Fla.
Phillips, Guy Berryman,	Arts,	Trinity.
Phillips, Jasper Louis,	Science,	Kinston.
Post, William Nicholas,	Arts,	Wilmington.
Ramsaur, Thomas Michael,	Arts,	China Grove.
Rankin, Edgar Ralph,	Arts,	Gastonia.
Rhodes, Leland Brown,	Science,	Chapel Hill.
Rights, Douglas Le Tell,	Arts,	Winston-Salem.
Royster, James Hunt,	Arts,	Townsville.
Scarborough, James Blaine,	Arts,	Mount Gilead.
Shamburger, Lacy Lee,	Arts,	Biscoe.
Sisk, Horace,	Arts,	Waco.
Smith, Peyton McGuire,	Arts,	Elizabeth City.
Spears, Marshall Turner,	Arts,	Lillington.
Stokes, Walter, Jr.,	Arts,	Nashville, Tenn.
Story, Thomas Edgar,	Arts,	Blowing Rock.
Strange, Robert, Jr.,	Arts,	Wilmington.
Summers, Rachel Lawrence,	Arts,	Statesville.
B. L., 1911, Statesville Female College.		
Tillett, William Smith,	Arts,	Charlotte.
Totten, Henry Roland,	Arts,	Yadkin College.
Townsend, Jackson,	Arts,	Marietta.
Walker, Daniel Joshua,	Arts,	Union Ridge.
Wiggins, Archibald Lee Manning,	Arts,	Durham.
Williams, Isham Rowland,	Arts,	Faison.
Wilson, George Pickett,	Arts,	Soudan, Va.
Workman, John Hillary Andrew,	Arts,	Cherryville.

Junior Class

Abernethy, Lonnie Lee,	Science,	Charlotte.
Allen, Reynold Tatum,	Arts,	Kinston.
Angel, Lewis,	Arts,	Franklin.
Applewhite, Blake Deans,	Arts,	Wilson.
Aycock, Benjamin Franklin,	Arts,	Fremont.
Bailey, Isaac Mayo,	Arts,	Smithfield.
Barrier, George Alderman,	Arts,	Dallas, Texas.
Bell, Reuben Holland,	Arts,	Swan Quarter.
Blalock, M. E., Jr.,	Science,	Norwood.
Brownson, Allyn Raymond,	Arts,	Asheville.
Cansler, John Scott,	Arts,	Charlotte.
Carlton, David Hill,	Arts,	Kernersville.
Chambers, Joseph Lenoir, Jr.,	Arts,	Charlotte.
Cobb, Collier, Jr.,	Arts,	Chapel Hill.
Collins, Hubert Walter,	Science,	Holly Springs.
Conroy, Frank Davies,	Arts,	Cullowhee.
Cox, Henry Leon,	Science,	Cullowhee.
Credle, Willie Frontis,	Arts,	Swan Quarter.
Darden, Paul Clifford,	Arts,	Fremont.
Drew, George Frank,	Arts,	Live Oak, Fla.
Dunnagan, Macon Rush,	Arts,	Yadkinville.
Eldridge, James,	Arts,	Dunn.
Feezor, John Gilmer,	Arts,	Silver Hill.
Ferguson, Thomas Wiley,	Arts,	Kendal.
Flume, Arthur James,	Science,	Palatine Bridge, N.Y.
Gentry, John Robert,	Arts,	Waynesville.
Green, Charles Benjamin,	Science,	Kittrell.
Grimsley, Harry Barnette,	Arts,	Greensboro.
Harris, Elisha Carter,	Arts,	Elizabeth City.
Hart, Edwin Badger,	Science,	Winston-Salem.
Hart, Meade,	Arts,	Mooresville.
Hartley, Samuel Grady,	Science,	Yadkin Collge.
Hatcher, John Thomas,	Arts,	Rose Hill.
Holmes, John Albert,	Arts,	Graham.
Holmes, Ralph Wendell,	Arts,	Graham.
Horton, Joseph Lloyd,	Arts,	Farmville.
Hughes, Clinton Kelly,	Arts,	Asheville.
Hughes, Thomas Spurgeon,	Science,	Elizabeth City.
James, Albert Warren,	Arts,	Laurinburg.
Johnston, Lemuel Ray,	Arts,	Haw River.
Jones, Troy Isaiah,	Arts,	Helton.
Kelly, Donald George,	Arts,	Clarkton.
Knowles, Daniel Lamont,	Arts,	Mount Olive.

Lasley, Robert Law,	Arts,	Wentworth.
Leach, Oscar,	Arts,	Raeford.
Lee, James Grover,	Arts,	Roxboro.
Long, Henry Cyrus, Jr.,	Arts,	Charlotte.
Lord, William Campbell,	Arts,	Wilmington.
McKnight, Roy Bowman,	Arts,	Charlotte.
McWhorter, Davis Lee,	Arts,	Calypso.
Oates, Malcolm Norval,	Science,	Charlotte.
Overcash, James Oliver, Jr.,	Arts,	Statesville.
Owen, Frank Redding,	Arts,	Yadkin College.
Parker, John Lloyd,	Science,	Ahoskie.
Parker, Walter Rea,	Arts,	Goldsboro.
Peel, Elbert Sidney,	Arts,	Williamston.
Perry, Edwin Jerry,	Arts,	Wilson.
Pitt, William Franklin,	Arts,	Macclesfield.
Pratt, Madison Hampton,	Arts,	Madison.
Price, Lemuel Alexander,	Arts,	Unionville.
Pritchett, James Turner,	Arts,	Lenoir.
Pugh, Jesse Forbes,	Arts,	Old Trap.
Ranson, Lucius Henry,	Arts,	Huntersville.
Reed, Ralph Augustus,	Arts,	Winston-Salem.
Robinson, Melvin,	Arts,	Atlantic.
Royall, Kenneth Claiborne,	Arts,	Goldsboro.
Scott, Luther Vernon,	Arts,	Siloam.
Sloan, Harold Thomas,	Arts,	Franklin.
Smith, Junius McRae,	Science,	Charlotte.
Spence, Ralph Case,	Arts,	Kipling.
Strayhorn, Isaac Richerson,	Arts,	Durham.
Strong, George Vaughan,	Arts,	Raleigh.
Stubbs, Harry Murden,	Arts,	Williamston.
Taylor, Carl Duffy,	Science,	Newbern.
Townsend, William Bartel,	Arts,	Red Springs.
Tyson, John Grover,	Arts,	Goldsboro.
Walker, John Alfred,	Science,	Germanton.
Weaver, James Ralph,	Arts,	Chapel Hill.
Webster, Felix Litaker,	Arts,	Wilkesboro.
Whitaker, William Pell, Jr.,	Arts,	Wilson.
Whiting, Seymour Webster,	Arts,	Raleigh.
Willis, Henry Stuart Kendall,	Arts,	High Point.
Wilson, Albert Robert, Jr.,	Arts,	Greensboro.

Sophomore Class

Abernethy, Richard Blythe, Jr.,	Science,	Charlotte.
Anderson, Thomas Harllee,	Arts,	Statesville.
Andrews, Troy Monroe,	Arts,	Chapel Hill.
Armfield, Roy Hanes,	Science,	Greensboro.
Austin, DeWitt Ray,	Science,	Charlotte.
Bailey, Kenneth Hubert,	Arts,	Wakefield.
Bell, Daniel Long,	Arts,	Graham.
Blue, Luther Avon, Jr.,	Arts,	Wilmington.
Bonner, Octavius Blanchard,	Science,	Chapel Hill.
Boseman, Claude Alfred,	Arts,	Enfield.
Boushall, Thomas Callendine,	Arts,	Raleigh.
Brinkley, Robert Loyd,	Arts,	Elm City.
Bryan, Joseph Shepard,	Arts,	Scotts Hill.
Burke, James Preston,	Arts,	Bessemer City.
Byrd, Bacchus Bright,	Science,	Swiss.
Campbell, Edgar Thomas	Arts,	Jessama.
Carr, Austin Heaton,	Arts,	Durham.
Carter, Frank Winfred,	Arts,	Maxton.
Clarke, Wilfong Waldron,	Arts,	Morganton.
Coats, Robert Floyd,	Arts,	Angier.
Conrad, Edwin Fuller,	Arts,	Winston-Salem.
Conrad, Howard Clarence,	Arts,	Pfafftown.
Cook, Robert Edward Lee, Jr.,	Arts,	Tarboro.
Cox, Russell Mills,	Science	Washington.
Craven, Thomas,	Arts,	Charlotte.
Crawford, John Robert, Jr.,	Arts,	Goldsboro.
Cummings, Alfred Ewing,	Arts,	Winston-Salem.
Day, John Tucker,	Arts,	Walkertown.
DeVane, Thomas Ashford,	Science,	Red Springs.
Dickson, James Gillespie,	Arts,	Raeford.
Edgerton, Earlie Dock,	Arts,	Fremont.
Edgerton, Gurney Edvertt,	Arts,	Fremont.
Ellington, Walter Clink,	Science,	Sanford.
Ervin, Carl Edgar,	Science,	Troutman.
Eutsler, George Willard,	Arts,	Greensboro.
Field, Bascom Lee,	Science,	Greensboro.
Fitzgerald, Robert Greeson,	Arts,	Linwood.
Forney, Adger Carter,	Science,	Greensboro.
Foust, Henry Price,	Arts,	Greensboro.
Fuller, Walter Pliny,	Arts,	Bradentown, Fla.
Gaither, Alfred Long,	Arts,	Statesville.
Gilman, Thomas Etheridge,	Arts,	Jacksonville.
Goldston, Walter Leon, Jr.,	Arts,	Goldsboro.

Graves, Henry Lewis,	Arts,	Carthage.
Guthrie, Wilson Gregory,	Arts,	Charlotte.
Harden, Graham,	Arts,	Burlington.
Harding, William Renny,	Arts,	Yadkinville.
Harper, Allen Bostic,	Arts,	Chapel Hill.
Harrell, William Henry,	Science,	Williamston.
Harris, Donald Ryan,	Arts,	Arden.
Hatch, Aubrey Carlisle,	Science,	Mount Olive.
Hicks, William Snelling,	Science,	Raleigh.
Hill, Thomas Fuller,	Arts,	Durham.
Holder, Brantson Beeson,	Arts,	Walkertown.
Holland, Curtis Avent,	Arts,	Greensboro.
Holmes, James Eugene,	Arts,	Graham.
Holton, George Ricks,	Arts,	Winston-Salem.
Hughes, James Boettner,	Science,	Black Mountain.
Huske, William Oliver,	Science,	Fayetteville.
Isley, Chris Leonard, Jr.,	Arts,	Burlington.
Johnston, Charles Louis,	Arts,	Knoxville, Tenn.
Keesler, Edward Yates,	Arts,	Charlotte.
Killefer, David Herbert,	Science,	Bradentown, Fla.
Kornegay, Wade,	Arts,	Chapel Hill.
Kurfees, Clifton Samuel,	Arts,	Germanton.
Lambert, Gabriel deLono,	Arts,	High Point.
Lambert, Henry Dionysus,	Arts,	Angier.
Latham, James Oliver,	Arts,	Huntsville, Ala.
Leak, James Augustus, Jr.,	Arts,	Wadesboro.
Lee, Charles Dennis,	Arts,	Faison.
Lee, Joseph Ira,	Arts,	Four Oaks.
Lilly, Edmund Jones, Jr.,	Science,	Fayetteville.
Lindau, Sigmund Baach,	Science,	Greensboro.
Lipscombe, Sterling Albert,	Arts,	Durham.
Long, Albert Anderson,	Arts,	Farmington.
McCall, Fred Bays,	Arts,	Charlotte.
McCants, John Marion,	Science,	Guthriesville, S. C.
McIntosh, John William,	Arts,	Denver.
Mallett, James Reginald,	Arts,	Salisbury.
Mangum, Charles Preston,	Science,	Kinston.
Manning, Frederick Cain,	Arts,	Durham.
Marshburn, Owen Meredith,	Arts,	Knightsdale.
Martin, Dennis Raymond,	Science,	Elizabeth City.
Martin, Grover Adlai,	Arts,	East Bend.
Martin, Harry Augustus,	Science,	Asheville.
Massey, William Everard,	Science,	Rock Hill, S. C.
Maxwell, William Owen Baldwin,	Arts,	Charlotte.

Mebane, George Allen, Jr.,	Arts,	Spray.
Michal, Thomas Lenoir,	Science,	Canton.
Millender, Charles White,	Arts,	Asheville.
Moore, David Columbus, Jr.,	Arts,	Greenville.
Moser, John William,	Arts,	Rural Hall.
Nance, Ophir Carmal,	Arts,	High Point.
Newsom, Albert Ray,	Arts,	Marshville.
Odom, John Daffin,	Arts,	Rocky Mount.
Oldham, Ralph Waldo,	Science,	Raleigh.
Parker, Benjamin Carl,	Arts,	Monroe.
Parker, Roscar Edward,	Arts,	Selma.
Parrott, Mercer Cranor,	Science,	Kinston.
Paty, B. F.,	Arts,	Tullahoma, Tenn.
Pell, Jesse Shepherd,	Arts,	Spartanburg, S. C.
Pendergraph, Henry Austin,	Arts,	Durham.
Pope, Emmett Judson,	Arts,	Mount Olive.
Prevatt, Joseph Robert,	Arts,	Lumberton.
Price, James Valentine, Jr.,	Arts,	Spray.
Pritchard, William Nelson, Jr.,	Science,	Chapel Hill.
Pruden, William Dossey, Jr.,	Arts,	Edenton.
Ragland, William Trent,	Arts,	Salisbury.
Reid, William Kirkpatrick,	Arts,	Gastonia.
Rhodes, William Henry, Jr.,	Arts,	Chapel Hill.
Robinson, Clarence,	Arts,	Atlantic.
Rowe, Joseph Vance,	Arts,	Small.
Sahag, Leon Maroot,	Science,	Teheran, Persia.
Scott, Samuel Floyd,	Arts,	Haw River.
Sears, Benjamin Belver,	Science,	Como.
Shoaf, Royal Grady,	Arts,	Lexington.
Sinclair, John Frank,	Arts,	Maxton.
Sloan, Charles Austin,	Arts,	Garland.
Smith, Claiborne Thweatt,	Arts,	Scotland Neck.
Smith, Major Thomas,	Arts,	Reidsville.
Spence, Samuel,	Arts,	Kinston.
Spoon, Samuel Clarence,	Science,	Haw River.
Stanford, William Raney,	Arts,	Teer.
Stockard, Tracy,	Science,	Reidsville.
Struthers, James Arthur,	Science,	Grists.
Styron, Arthur Herman,	Arts,	Wilmington.
Tamraz, John Moorhaj,	Science,	Tabriz, Persia.
Taylor, William Raymond,	Arts,	Louisburg.
Thigpen, Frank Lafayette,	Science,	Tarboro.
Thomas, William Wayt,	Arts,	Charlotte.
Thompson, James Alfred,	Arts,	Haw River.

Thompson, William Clark,	Arts,	Lewiston.
Thompson, William Reid,	Arts,	Teer.
Thorp, William Lewis, Jr.,	Arts,	Rocky Mount.
Tilley, Edward Lloyd,	Science,	Bahama.
Turlington, Jesse Eli,	Arts,	Benson.
Twine, Bertram Edward,	Arts,	Edenton.
Walke, William Capehart,	Science,	Avoca.
Walton, Basil Manly,	Arts,	Morganton.
Warlick, William Farel,	Arts,	Keepsville
Weatherly, Albert Thomas,	Arts,	Gorman.
Weeks, Willie Person Mangum,	Arts,	Washington, D. C.
West, Clifton Forrest,	Science,	Dover.
Whitaker, George Betton,	Arts,	Winston-Salem.
Whitaker, Thomas Bascom,	Arts,	Oak Ridge.
Whitaker, Zack Lanier,	Arts,	Oak Ridge.
White, Paul Linwood,	Arts,	Scotland Neck.
Whitfield, James Vivian,	Arts,	Wallace.
Wilkins, John Allen,	Arts,	Draughon.
Williams, Warren Rand,	Science,	Sanford.
Woollcott, Philip,	Arts,	Raleigh.
Yelverton, Richard Becton,	Arts,	Fremont.
Yelverton, Roy Lee,	Arts,	Fremont.

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Freshman Class

Allen, Herbert Edwin,	Science,	Asheville.
Anderson, Andrew Vance,	Arts,	Eagle Rock.
Auld, Benjamin Franklin,	Arts,	Baltimore, Md.
Bailey, Herbert Victor,	Arts,	Neuse.
Barber, Lawrence Corbin,	Arts,	Asheville.
Barnes, Jonas Herring,	Science,	Kenly.
Barnes, Rudolph,	Arts,	Clayton.
Barnes, Vernon Meredith,	Science,	Taylor.
Beckwith, Clifton Warren,	Arts,	Raleigh.
Bird, Orval,	Arts,	Murphy.
Black, Hoke Barrymore,	Arts,	Greenville, S. C.
Black, Lacy William,	Arts,	Ramseur.
Blaine, James Cornaro,	Arts,	Franklin.
Blair, Tully Daniel,	Arts,	Greensboro.
Blalock, Hubert Morse,	Arts,	Raleigh.
Booth, Shepherd Allen,	Arts,	Oxford.
Bourne, Francis Churchill,	Arts,	Asheville.
Bradford, Zebulon Vance,	Arts,	Huntersville.
Bradshaw, Francis Foster,	Arts,	Hillsboro.
Brinkley, Walter Foil,	Arts,	Lexington.

Brinson, George Grady,	Science,	Reelsboro.
Brooks, Robert Plato,	Arts,	Woodsdale.
Bryan, Albert Othel,	Science,	Battleboro.
Buchanan, Marcellus, Jr.,	Arts,	Sylva.
Capehart, William Jonathan,	Arts,	Roxobel.
Capps, Edward Francis,	Arts,	Lucama.
Carmichael, Whitfield Chapman, Jr.,	Arts,	Asheville.
Carter, John Wesley, Jr.,	Arts,	Maxton.
Castelloe, Allen Thurman,	Arts,	Aulander.
Christopher, Fred Oscar,	Arts,	Murphy.
Clark, Ralph Vivian,	Arts,	Clarkton.
Clarkson, Francis Osborne,	Arts,	Charlotte.
Clement, Louis Heyl, Jr.,	Arts,	Salisbury.
Cobb, William Borden,	Arts,	Goldsboro.
Coggin, Charles Lee,	Arts,	Salisbury.
Collett, John Hayes,	Arts,	Salisbury.
Combs, Howard Johnson,	Science,	Columbia.
Cone, Herman,	Arts,	Greensboro.
Conrad, David Homer,	Arts,	Lexington.
Cooper, Frank Hodges,	Arts,	Washington.
Cooper, George Long,	Arts,	Graham.
Cooper, James Allison,	Arts,	Henderson.
Cowan, James Gerald,	Arts,	Asheville.
Cox, James Marmaduke,	Arts,	Norfolk, Va.
Craig, George Winston,	Arts,	Asheville.
Crawford, Farrell Moffatt,	Arts,	Cornelia, Ga.
Crouse, Rush Floyd,	Arts,	Nile.
Currie, Edwin Holt,	Arts,	Raeford.
Cutchin, James Elmer,	Arts,	Whitakers.
Dalton, William Bennett,	Arts,	Madison.
Dancy, Bryan Grimes,	Arts,	Baltimore, Md.
Darden, Douglas Beaman,	Arts,	Fremont.
Davis, Lee Roy,	Arts,	Bladenboro.
Davis, Robert Vernon,	Arts,	Fremont.
Deaton, Fred Hyams,	Arts,	Statesville.
Dees, Julius G.,	Science,	Grantsboro.
Dobbins, Charles Nelson,	Arts,	Yadkinville.
Donnell, Mynar Cecil,	Science,	Greensboro.
Drew, Herbert Jackson,	Arts,	Live Oak, Fla.
Dunbar, Wade Stafford,	Arts,	Oak Ridge.
Duncan, Early Edward Walters,	Arts,	Woodsdale.
Duncan, George Solomon,	Arts,	Holly, Tenn.
Duval, Thurston Forney,	Science,	Whiteville.
Dysart, John Overton,	Arts,	Lenoir.

Edwards, Lee Henry,	Arts,	Holly Springs.
Elliott, Aubrey McCoy,	Arts,	Charlotte.
Elsom, Floyd Howard,	Science,	Hendersonville.
English, Charles Eugene,	Science,	Asheville,
Epps, Preston Herschell,	Arts,	Chapel Hill.
Eure, Stephen Edward, Jr.,	Arts,	Taylor.
Everett, William Robert,	Science,	Palmyra.
Fairley, Archie Blair,	Arts,	Monroe.
Farmer, Leslie James,	Arts,	Wilson.
Fearrington, Amos Gregson,	Science,	Edenton.
Fore, Clyde Lathrop,	Science,	Charlotte.
Fulcher, Manly,	Arts,	Atlantic.
Fulton, Jacob, Jr.,	Arts,	Walnut Cove.
Garrett, Wister Cleveland,	Arts,	Julian.
Glenn, John Melvin,	Arts,	Marion.
Goforth, Osborn LeRoy,	Arts,	Mooresville.
Hackler, James Frank,	Arts,	Sparta.
Hamilton, Harvey,	Arts,	Atlantic.
Hancock, Franklin Wills, Jr.,	Arts,	Oxford.
Harding, Henry Grady,	Arts,	Mocksville.
Hardison, Herman Henry,	Arts,	Wadesboro.
Hardison, James Archibald, Jr.,	Arts,	Wadesboro.
Harper, George Arthur,	Science,	Chapel Hill.
Harper, William Troy,	Arts,	Chapel Hill.
Harrell, Beemer Clifford,	Arts,	Marshville.
Harris, Joseph Johnson,	Arts,	Louisburg.
Harrison, James Leftwich,	Arts,	Raleigh.
Hendrix, Joseph Wertz,	Arts,	Concord.
Hester, Hugh Bryan,	Arts,	Hester.
Hogan, Ernest Glen,	Arts,	Chapel Hill.
Holt, John Ransom, Jr.,	Science,	Princeton.
Holt, Walter Lawrence, Jr.,	Science,	Fayetteville.
Homewood, Roy McRae,	Science,	Burlington.
Hooks, James Clarence,	Arts,	Fremont.
Hoover, William John,	Arts,	Bell Buckle, Tenn.
Horton, Albert Graham,	Arts,	Wakefield.
House, Robert Burton,	Arts,	Thelma.
Hudson, Hinton Gardner,	Arts,	Smithfield.
Hunt, Edward Outlaw,	Science,	Oxford.
Hunter, David Wills,	Arts,	Greensboro.
Hunter, William Lewis,	Science,	Fayetteville.
Hunter, Wade Russel,	Arts,	Alexander.
Hurdle, John Harris,	Science,	Reidsville.
Huske, John Manning,	Arts,	Fayettevile.

Huske, Joseph Strange,	Arts,	Fayetteville.
Jarrell, John Frank,	Arts,	Chapel Hill, Tenn.
Jernigan, Herman,	Arts,	Benson.
Johnson, Herschel Vesparian,	Arts,	Charlotte.
Johnston, Julius, Jr.,	Arts,	Yanceyville.
Jones, John Haywood,	Science,	Newbern.
Joyner, Edward Gray,	Arts,	Littleton
Joyner, William Henry,	Science,	Princeton.
Jurney, Van Buren,	Arts,	Olin.
Kanoy, Willie Clarence,	Arts,	Biscoe.
Kent, John Archelaus,	Arts,	Lenoir.
Lackey, Boston McGee,	Arts,	Lincolnton.
Lambeth, Charles Edward,	Arts,	Fayetteville.
Lassiter, James Horace,	Arts,	Rich Square.
Lawrence, Isaac Laurence,	Arts,	Pilot Mountain.
Ledbetter, Allen Thurman	Arts,	Marion.
Lewis, McDaniel,	Arts,	Kinston.
Link, Bob Lee,	Science,	Salisbury.
Linn, Thomas Calvin, Jr.,	Arts,	Salisbury.
Little, Risden Tyler Bennett,	Arts,	Wadesboro.
Long, Giles Mebane,	Arts,	Charlotte.
Love, James Franklin,	Arts,	Lincolnton.
Lupton, Edward Willis,	Science,	Swan Quarter.
McCurry, John Dob,	Arts,	Marion.
McDuffie, Roger Atkinson,	Science,	Greensboro.
McIver, John McMillan, Jr.,	Arts,	Gulf.
McLean, Joseph Boyd,	Arts,	Whitsett.
Mann, Joseph Ernest,	Arts,	New Hill.
Marsh, Edward Baxter,	Arts,	Salisbury.
Marsh, Luther Grier,	Arts,	Marshville.
Marshall, Philip Booe,	Science,	Winston-Salem.
Matthews, Sidney Eure,	Arts,	Winton.
Meckel, George Curtis,	Arts,	Anderson, Ind.
Merritt, Oscar von Kochtitzky,	Arts,	Mount Airy.
Meyer, Louis B.,	Arts,	Enfield.
Milburn, Thomas Yancey,	Science,	Washington, D. C.
Miller, Harry,	Arts,	Stony Point.
Moffitt, Barney Cooper,	Arts,	Sanford.
Moore, Julian Alison,	Science,	Wilmington.
Moore, James Roy,	Arts,	Lenoir.
Morgan, Paul Newhill,	Arts,	Burlington.
Morris, Carlyle,	Arts,	Fremont.
Morton, Marner William,	Arts,	Roxboro.
Murphy, Charles Lee Cole,	Arts,	Salisbury.

Neilson, Robert Wells,	Science,	Winston-Salem.
Norris, Frank Wisconsin,	Arts,	Jacksonville, Fla.
Norwood, Evan Wilkins,	Arts,	Goldsboro.
Odom, Don Franklin,	Arts,	Mount Olive.
Owen, William Mansfield,	Arts,	Welcome.
Page, Robert Newton, Jr.,	Arts,	Biscoe.
Parker, John Merrel,	Arts,	Bradentown, Fla.
Parker, William Baylies,	Science,	Goldsboro.
Patterson, Hazel,	Science,	Burlington.
Pell, William Edward,	Arts,	Winston-Salem.
Pfaff, Claude Rufus,	Arts,	Pfafftown.
Phillips, Paul Vernon,	Science,	Goldsboro.
Pike, Samuel Clark,	Arts,	Liberty.
Pitts, William Barney,	Arts,	Charlotte.
Pleasants, Harvey McKay,	Science,	Rowland.
Powell, Edward Farrior,	Arts,	Whiteville.
Price, Joseph Hampton,	Arts,	Monroe.
Pridgen, Ralph Craven,	Arts,	Tabor.
Proctor, William Isaac,	Arts,	Raleigh.
Ragland, Oscar Holt,	Arts,	Oxford.
*Rand, Isaac William,	Arts,	Smithfield.
Raper, Paul Roberts,	Arts,	Lexington.
Ratcliff, Zeno Olen,	Science,	Pantego.
Ray, James Clyde,	Arts,	Hillsboro.
Reid, Edward Solomon, Jr.,	Science,	Charlotte.
Reid, Samuel Leslie,	Science,	Lowell.
Reyner, Daniel,	Science,	Raleigh.
Roberts, Charles John, Jr.,	Arts,	Lyon.
Robinson, Marius Emmett, Jr.,	Arts,	Goldsboro.
Royall, George Claiborne, Jr.,	Arts,	Goldsboro.
Royster, Beverly Sampson, Jr.,	Arts,	Oxford.
Royster, David Wyeth,	Arts,	Shelby.
Ruffin, Thomas White,	Arts,	Louisburg.
Rymer, William Cecil,	Arts,	Hendersonville.
Schiffman, LeRoy Edgar,	Science,	Greensboro.
Shapiro, Moses,	Arts,	Winston-Salem.
Sharpe, George Graham,	Arts,	Burlington.
Shaver, William Trantham,	Science,	Salisbury.
Sheely, Harry Olen,	Science,	Chapin, S. C.
Shrago, Jacob Philip,	Arts,	Goldsboro.
Siddall, Roger Shore,	Arts,	Sumter, S. C.
Simmons, Enoch Spencer,	Arts,	Washington.
Sims, Luther Raleigh,	Arts,	Lenoir.

*Died September 13, 1912

Smith, Cleveland Lafayette,	Arts,	Indian Trail.
Smith, George Wallace,	Science,	Wilmington.
Smith, William Oliver,	Arts,	Raleigh.
Spencer, Robert Baxter,	Arts,	Hobucken.
Stedman, John Porter, Jr,	Arts,	Oxford.
Stevens, Charles Leary,	Arts,	Indian Town.
Stuart, Charles Edwin,	Arts,	Pembroke.
Sugg, Eugene Sifax,	Science,	Chapel Hill.
Tayloe, David Thomas, Jr.,	Science,	Washington.
Taylor, James Alexander,	Arts,	Oxford.
Temko, Herman Berton,	Science,	Greensboro.
Thompson, Earle Hinson,	Arts,	Red Springs.
Thornton, Malcomb James,	Arts,	Newton Grove.
Thorp, Adam Tredwell,	Science,	Rocky Mount.
Timberlake, Francis Justice,	Arts,	Youngsville.
Tipton, James Cleophas,	Arts,	Burnsville.
Towns, Richard Hugh,	Arts,	Murphy.
Turner, Henry Clay,	Arts	Norwood.
Umstead, William Bradley,	Arts,	Bahama.
Vaughn, Robert Candler,	Arts,	Winston-Salem.
Veazey, Elbert Lambert,	Arts,	Stem.
Walker, Charles Ernest,	Arts,	Morganton.
Watts, Maurice Dunstan,	Arts,	Williamston.
Weill, Bascom Covington,	Arts,	Rockingham.
Welch, Robert Henry Winbourne, Jr.,	Arts,	Hertford.
Wellons, Robert Andrew,	Arts,	Smithfield.
White, Thomas,	Arts,	Oxford.
Wilkinson, William Stronach, Jr.,	Arts,	Rocky Mount.
Williams, Marshall McDairmid, Jr.,	Science,	Faison.
Wilson, Harry,	Arts,	Durham.
Winslow, Hillary Goode,	Arts,	Hertford.
Wood, Fred Philips,	Arts,	Edenton.
Wood, Julien, Jr.,	Arts,	Edenton.
Wooten, Joseph Ernest,	Arts,	Snow Hill.
Wright, John Laurens,	Arts,	Wilmington.
Wright, Robert Hazelhurst, Jr.,	Arts,	Nashville, Tenn.
Yarborough, Nathaniel Bayard,	Arts,	Cary.
Yarborough, Robert Samuel,	Arts,	Lexington.
Zollicoffer, Allen Caulincourt,	Arts,	Weldon.

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Special Students

Barnes, Lelia Leavitt,	Special,	Norfolk, Va.
Beard, Bryce Parker,	Elect. Law,	Salisbury.
Bell, Eric Franklin,	Elect. Phar.,	Dunn.
Bigger, David Andrew,	Elect. Med.,	Rock Hill, S. C.
Black, William Wetmore,	Elect. Law,	Cherryville.
Blackeney, Anthony Kennedy,	Special,	Kershaw, S. C.
Brittain, Basil Frank,	Elect. Law,	Ashboro.
Brockman, Harry Lyndon,	Elect. Med.,	Greensboro.
Bynum, Joseph Nicholas,	Special,	Farmville.
Canaday, Claude Carl,	Elect. Law,	Benson.
Cantwell, Richard Willard,	Elect. Law,	Wilmington.
Cole, Furnifold,	Elect. Law,	Beasley.
Cole, Nathan,	Elect. Law,	Beasley.
Credle, Blount Avery,	Elect. Law,	Wysocking.
Devereux, Robert Eddens,	Elect. Med.,	Spencer.
Edwards, Opie Gray,	Elect. Med.,	Spring Hope.
Edwards, Wiley Benjamin,	Special,	Wilson.
Everett, Victor Elmo,	Elect. Med.,	Plymouth.
Gainey, John White,	Elect. Med.,	Hope Mills.
Gardner, Paris Cleveland,	Elect. Law,	Shelby.
Grimsley, William Tull,	Special,	Greensboro.
Hall, Lucius Coleman,	Elect. Med.,	Webster.
Hamilton, Ammie Burnice,	Elect. Med.,	Atlantic.
Harper, Luby Alexander,	Elect. Law,	Greenville.
Hash, Jackson Bruce,	Elect. Teach.,	Piney Creek.
Hayworth, Roy Washington,	Elect. Med.,	Ashboro.
Henson, John Walker, Jr.,	Elect. Med.,	Leaksville.
Holt, Edwin Nicholas,	Elect. Med.,	Greensboro.
Huff, John Melville,	Elect. Med.,	Henderson.
Jones, Frank Carleton,	Elect. Med.,	Plymouth.
Jones, Leslie Edward,	Elect. Law,	Swan Quarter.
Joyner, Robert Thomas,	Elect. Med.,	Rocky Mount.
Kanner, Abraham Otto,	Elect. Law,	Sanford, Fla.
Lassiter, Henry Grady,	Elect. Med.,	Lasker.
Latham, Joseph Roscoe,	Elect. Med.,	Belhaven.
Lewallen, Alvis Thaddeus,	Elect. Med.,	Ashboro.
Little, Robert Eugene, Jr.,	Special,	Wadesboro.
Love, William Parett, Jr.,	Elect. Med.,	Shelby.
McArthur, David McPherson,	Special,	Red Springs.
McGlohan, Joseph Dixon,	Elect. Med.,	Greenville.
McLeod, Walter Guy,	Special,	Maxton.
Meeks, Marcus Henry, Jr.,	Elect. Law,	Nashville, Tenn.
Merriman, William Leonard,	Elect. Law,	Wilmington.

Moore, Charles Joyce,	Elect. Law,	Washington.
Moore, James Bernice,	Elect. Med.,	Burgaw.
Morrison, Harry K.,	Elect. Med.,	Harrisburg.
Newman, Samuel Raphael,	Elect. Med.,	Washington.
Parshley, Anthony Roberts,	Elect. Min.,	Hertford.
Payne, Lewis Banks,	Elect. Med.,	Norfolk, Va.
Rouse, Walter Bryant,	Elect. Law,	Chapel Hill.
Rousseau, James Parks,	Elect. Med.,	Wilkesboro.
Sabiston, Frank,	Elect. Med.,	Jacksonville.
Sanderford, Harvey Grey,	Elect. Med.,	Creedmoor.
Speight, Elias Carr,	Elect. Med.,	Whitakers.
Stacy, John Benton,	Elect. Law,	Ruffin.
Stroup, Matthew Augustus,	Elect. Law,	Cherryville.
Thomas, Alonzo, Jr.,	Elect. Med.,	Beaufort.
Traywick, Roy Aaron,	Elect. Law,	Marshville.
Wall, LeRoy Byron,	Elect. Law,	Tobaccoville.
Warlick, Henry Clinton, Jr.,	Elect. Med.,	Newells.
Wellons, Benjamin Fletcher,	Elect. Law,	Smithfield.
Williams, Norman Grady,	Elect. Med.,	Franklin.
Williams, William Christopher,	Elect. Med.,	Durham.
Winters, Sellie Robert,	Elect. Journal,	Stem.
Wright, Junius Holt,	Elect. Med.,	Siler City.

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Senior Students in Law

Bailey, Karl Braswell, A. B., 1911.	Elm City.
Broadfoot, Charles Wetmore, Jr.,	Fayetteville.
Byrd, William Bobbitt,	Asheville.
Daniel, Watson Louis,	Winton.
Graham, Frank Porter, A. B., 1909.	Charlotte.
Gravely, Lloyd Lee, A. B., 1910, Randolph-Macon College.	Rocky Mount.
Hester, John William, A. B., 1908.	Hester.
Hines, John Edward,	Polloksville.
Johnston, John Thomas,	Chapel Hill.
Lamb, Luke,	Williamston.
McCulloch, Edgar Franklin, Jr., A. B., 1911.	White Oak.
Manning, John Hall, A. B., 1909.	Durham.
Martin, Charles William,	Touchet, Wash.
Mitchell, John Watson,	Winton.
Morris, James Ward, Jr., A. B., 1912.	Tampa, Fla.
Shipp, Robert Johnston,	Newton.

Smathers, William Henry,	Waynesville.
Thomson, Julius Faison, A. B., 1909.	Faison.
Wall, Robert Winfred,	Elk Park.
Ward, George Hahn,	Waynesville.
Warlick, Wilson Lee,	Newton.
Woody, Thomas Brooks,	Bethel Hill.

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Junior Students in Law

Basnight, Stein Hughes,	Newbern.
Beam, William Speight,	Shelby.
Bolick, Charles Boone,	Franklin.
Campbell, William Baugham,	Washington.
Canaday, Claude Carl,	Benson.
Coffey, Charles Max Donald,	North Wilkesboro.
Cox, George Hubert,	Winterville.
Crawford, Everett,	Hayesville.
Dortch, Gaston Lewis,	Goldsboro.
Farrior, Kenneth McKinnon,	Chapel Hill.
Gattis, Samuel Mallette, Jr., A. B., 1912.	Hillsboro.
Gibbs, Cecil Norwood,	Lake Landing.
Glover, John Bell, Jr.,	Statesville.
Graham, Alexander Hawkins, A. B., 1912.	Hillsboro.
Gwynn, Price Henderson, Jr., A. B., 1912.	Leaksville.
Harris, Edgar Thomas,	Pinetown.
Hart, Julian Gilliam,	Winston-Salem.
Henderson, John Jay, B. Sc., 1906, M. A., 1907. Ohio Wesleyan.	West Lafayette, O.
Horney, Julius Teague, A. B., 1911. Lenoir College.	High Point.
Jones, Leslie Edward,	Swan Quarter.
Jordan, John Richard,	Winton,
Kenyon, John Rockwell, A. B., 1911, Catawba College.	Newton.
King, Robert Ruffin,	Greensboro.
Koonce, Alexander Hamilton, A. B., 1893.	Chapel Hill.
Leatherwood, Joseph Gilmer,	Waynesville.
McKinnon, Henry Alexander, A. B., 1912, Trinity College.	Maxton.
Marks, Albert Rosenthal,	Newbern.
May, Frederick Hamilton,	Wendell.
Oates, William Holt,	Hendersonville.
Outlaw, Alexander Bate,	Elizabeth City.

Page, Thaddeus Shaw,	Biscoe.
Parker, Ezra,	Benson.
Patterson, Earl Victor, A. B., A. M., 1912.	Burlington.
Roberts, Jesse Lee,	Wentworth.
Rousseau, Julius Addison, A. B., 1910, St. Mary's College.	Wilkesboro.
Scott, John Andrew,	Statesville.
Smith, Paris Cecil,	Swannanoa.
Stacy, Horace Edney, A. B., 1910.	Chapel Hill.
Stancill, Jesse Clyde,	Charlotte.
Strong, Charles Miller,	Charlotte.
Swicegood, Louie Alexander,	Salisbury.
Taylor, Walter Frank, A. B., 1911.	Faison.
Tilley, Edward Lloyd,	Bahama.
Tolson, Henry Albert,	Newport.
Walker, Daniel Joshua,	Union Ridge.
West, Furman Erastus,	Wests Mill.
West, William Claude,	Wests Mill.
Whitney, Floyd Gilbert, A. B., 1911.	Bessemer City.
Wiggins, Archibald Lee Manning,	Durham. 49

Special Students in Law

Alexander, Milton T.,	Creswell.
Babbitt, Zebulon Vance,	Bayboro.
Beckham, Virgil Gustavus,	Hiddenite.
Branch, James Robert,	Wilmington.
Burgin, William Olin,	Lexington.
Daniels, Charles Albin,	Newbern.
Davis, Orville Thomas,	Waynesville.
Dorsett, Henry Grady,	Chapel Hill.
Emerson, Alan Chase,	Wilmington.
Garrison, Paul Carmical,	Goldsboro.
Hannah, Harry Burgwyn,	Siler City.
Harkins, Harry Springfield, Jr.,	Asheville.
Horton, Wilkins Peryman,	Durham.
Lindsay, Charles Lee,	Chapel Hill.
Moore, Carl Dana,	Charlotte.
Stiers, Percy Townsend,	Wentworth.
Tyler, Ernest Rudolph,	Roxobel.
Webber, Jesse Clinton,	Earl.
Wells, Loyd Armstrong,	Wilson.
York, Cicero Arthur,	High Point.

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Students in Law (Summer School)

*Alexander, Milton T.,	Creswell.
Battle, John Manning, A. B., 1911.	Rocky Mount.
*Broadfoot, Charles Wetmore, Jr.,	Fayetteville.
Buchanan, Carey Parks,	Charlotte.
*Burgin, William Olin,	Lexington.
Burgwin, Kenneth Ogden,	Tarboro.
*Byrd, William Bobbitt,	Asheville.
Cansler, Edwin Thomas, Jr., LL. B., 1912.	Charlotte.
Childs, Wade Hampton,	Lincolnton.
Christie, William McLean,	Jacksonville, Fla.
Clegg, Luther Bynum,	Carthage.
Daughtridge, John Clarence,	Rocky Mount.
Davis, William Cleveland,	Charlotte.
Dees, William Archie, A. B., 1911.	Pikeville.
DeLaney, Ernest Stanhope, A. B., 1910.	Matthews.
*Dorsett, Henry Grady,	Chapel Hill.
Eason, Joseph Daniels, Jr., A. B., 1910.	Stantonsburg.
Fentress, Baxter Lee, A. B., 1910.	Summerfield.
Gravely, Page Keen, B. L., University of Virginia, 1912.	Rocky Mount.
Grier, William Pressley, A. B., 1909.	Charlotte.
Guess, William Conrad, A. B., 1911.	Apex.
Horton, Joseph Lloyd,	Farmville.
Hudson, James Giles,	Spencer.
*Johnston, John Thomas,	Chapel Hill.
Jones, Ovid Winfield, A. B., 1908, Guilford College, A. M., 1912.	Winston-Salem.
Kittrell, Robert Gilliam, Ph. B., 1899.	Tarboro.
*Koonce, Alexander Hamilton, A. B., 1893.	Chapel Hill.
*Lamb, Luke,	Williamston.
*Lindsay, Charles Lee,	Chapel Hill.
*McCulloch, Edgar Franklin, Jr., A. B., 1911.	White Oak.
Mason, George Bason,	Gastonia,
*Morris, James Ward, Jr., A. B., 1912.	Tampa, Fla.
Muldrow, Charles Wesley, B. S., 1906, The Citadel.	Florence, S. C.
Murrell, James Warren,	Phoenix,

*Also in regular attendance, Session 1912-1913.

Patterson, James Southerland, A. B., 1910.	Chapel Hill.
Paul, John Daniel,	Pungo.
Ranson, Robert Eugene, A. B., 1901, Erskine College.	Troy.
Rhodes, William Henry,	Riverdale.
Roberson, Hoyt, A. B., 1911.	Farmington.
Ross, Charles,	Lillington.
Small, Walter Lowry, A. B., 1911.	Elizabeth City.
*Swicegood, Louie Alexander,	Salisbury.
Taliaferro, Carol Davis, B. L., 1912, University of Virginia.	Charlotte.
Teague, Claude Edward, A. B., 1912.	Cameron.
Teague, Dossey Battle, A. B., 1910.	Cameron.
Teague, Samuel Farris, A. B., 1910.	Goldsboro.
*Thomson, Julius Faison, A. B., 1909.	Faison.
Trivette, Eugene,	Harmony.
*Ward, George Hahn,	Waynesville.
Wiley, Sam Hamilton,	Salisbury.
Williams, Henry Elliott,	Fayetteville.
Williams, James McBryde,	Godwin.
Williams, Wade Hampton,	Hiddenite.
Zollicoffer, Jere Perry, A. B., 1911.	Henderson.

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Students in Medicine

Barker, Ebbie Basil,	First,	Trenton.
Belden, Louis deKyser, S. B., 1910.	Second,	Wilmington.
Bell, Baxter Israel,	Second,	Swan Quarter.
Bender, Ernest Linwood,	Second,	Polloksville.
Blue, Alexander McNeill, A. B., 1911.	Second,	Carthage.
Boushall, Joseph Dozier, Jr.,	First,	Raleigh.
Brackett, William Ernest,	Second,	Lawndale.
Burleson, William Brown,	Second,	Plumtree.
Burrus, Thomas Preston,	First,	Fairfield.
Crouch, Auley McRae,	First,	Roberdel.
Eley, Clayton Willard,	First,	Woodland.
Elliott, Forrest,	Second,	Shelby.
Falkener, William White, A. B., 1912.	Second,	Warrenton.

*Also in regular attendance, Session 1912-1913.

Fetzer, Paul Williams,	First,	Reidsville.
Finch, Ollie Edward,	Second,	Kittrell.
Flippin, Eugene Littlejohn,	First,	Mount Airy.
Francis, William Gifford,	Second,	Waynesville.
Greenwood, Adolphus Bart, A. B., 1910.	First,	Asheville.
Griffin, Mark Alexander,	First,	Wingate.
Hege, John Roy,	Second,	Lexington.
House, Wooster Hassell,	Second,	Stokes.
Hunter, Dewitt Talmage,	First,	Matthews.
James, Fairley Patterson, A. B., 1912.	First,	Laurinburg.
Jennings, Olin Henry,	First,	Poors Knob.
Kritzer, Henry Rowland,	First,	Spencer.
Lackey, Franklin Harris,	Second,	Fallston.
Lassiter, Chester Lawrence,	Second,	Wilsons Mills.
Long, Roy Hamilton,	First,	Monroe.
McKay, William Peter,	First,	Red Springs.
McKenzie, Benjamin Whitehead,	First,	Salisbury.
Milliken, James Shepard,	Second,	Pittsboro.
Moore, Allen Hoyt,	First,	Washington.
Morrow, Thomas Lacy,	Second,	Mebane.
Oates, William Clyde,	First,	Grover.
Oppenheimer, William Lehman,	First,	Rocky Mount.
Pate, James Gibson,	First,	Gibson.
Perrel, David Franklin,	First,	Germanton.
Proctor, Ivan Marriott, Jr.,	Second,	Raleigh.
Roberts, Guy Rudisill,	Second,	Lincolnton.
Sample, Robert Cannon, B. S., 1911, Davidson College.	Second,	Hendersonville.
Simmons, James Stevens, B. S., 1911, Davidson College.	Second,	Graham.
Sloan, William Henry, B. S., 1910, Davidson College.	Second,	Garland.
Smith, William Alexander,	First,	Goldsboro.
Starr, Henry Frank,	First,	Salisbury.
Stevens, Ralph Edwin,	Second,	Sanford, Fla.
Summey, Thomas Johnson,	Second,	Brevard.
Sumner, Roy DeWitte,	Second,	Fletcher.
Swindell, Lewis Holmes, Jr.,	First,	Swan Quarter.
Thigpen, Harry Gordon,	First,	Tarboro.
Tolar, Julian Nolley,	Second,	Sanford, Fla.
Uzzle, Edward Foy,	First,	Raleigh.
Vann, Norman St. George,	First,	Charlotte.
Wakeley, William Easton,	Second,	Orange, N. J.
Woodruff, Fred Gwyn,	First,	Sparta.

Students in Pharmacy

Andrews, Richard Homer,	First,	Chapel Hill.
Brantley, Paul,	First,	Wilson.
Butler, Alman Byron,	First,	Clinton.
Canaday, Ralph Clarence,	First,	Benson.
Cordon, Joseph Palamountain,	First,	Clayton.
Cox, Charles Lea,	Second,	Warsaw.
Fisher, Lester,	First,	Concord.
Foster, Caney,	Second,	Asheville.
Foy, Arnold Pugh,	First,	Polloksville.
Heath, David,	First,	Rock Hill, S. C.
Henderson, John Leland,	First,	Hickory.
Higgins, Summey Byrd,	First,	Leicester.
Hilliard, Ralph Parker,	First,	Clayton.
Holland, Henry Odessa,	First,	Apex.
Houston, Robert Stroud,	First,	Monroe.
Jones, Joseph Hunter,	First,	Reidsville.
Kirby, Kenneth Alexander,	First,	Marion.
Koonce, Thomas Ricaud,	First,	Chadbourn.
Lunn, Frank Haliburton,	Second,	Wilkesboro.
Lytch, James Edison,	First,	Rowland.
Marley, Fred Harold,	First,	Lenoir.
Monroe, Alexander Simmons,	First,	Rockingham.
Moore, John Craven,	Second,	Elm City.
Pope, A. Stanley,	First,	Weldon.
Redmon, Herman Leslie,	First,	Marshall.
Rogers, John Lambeth,	First,	Creedmoor.
Ward, Edward Harvie,	First,	Tarboro.
Warren, Junius Campbell,	First,	Benson.
Williams, Frazier,	First,	Goldsboro.
Winstead, Lamar Herbert,	First,	Wilson.
Wolfe, William Samuel,	First,	Mount Airy.
Worthington, Elmer Clifton,	First,	Ayden.

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Summer School Students, 1912

Abernethy, Frances,	Chapel Hill.
Abernethy, Lucy,	Lenoir.
Aiken, Hattie,	Brevard.
Alexander, Hattie,	Charlotte.
Alexander, May,	Asheville.
Alspaugh, Stella,	Winston-Salem.
Anderson, Dora Alice,	Lenoir.
Arthur, Lucile E.,	Morehead City.
Ashburn, Hattie F.,	Pleasant Hill.
Atkinson, Katie E.,	Enfield.
Avent, Fannie,	Jonesboro.
Aycock, William B.,	Raleigh.
Baggett, Sara,	Tabor.
Baker, Lelia M.,	Fallston.
Banks, Etta Ruth,	Eure.
Barker, Floy,	Apex.
Barkley, Sallie,	Enfield.
Barnhardt, Maggie H.,	Harrisburg.
Barnhill, Sallie Cooper,	Enfield.
Barrett, Mabel,	Rocky Mount
Bassett, Claude,	Rocky Mount.
Battle, Sallie Haywood,	Rocky Mount.
Baugham, Maggie S.,	Potecasi.
Beam, Mike Seth,	Henry.
Beam, Wiliam Speight,	Shelby.
Benson, Stella,	Troy.
Best, Mary J.,	Louisburg.
Bethea, Curtis,	Williamston.
Bidwell, Beulah,	Franklin.
Birdsong, Heber,	Raleigh.
Bivens, Curtis Lee,	Cary.
Bivens, Samuel Robert,	Monroe.
Black, Mrs. T. B.,	Lowell.
Blake, Irene,	Hope Mills.
Blalock, Blanche,	Chapel Hill.
Blalock, Hubert M.,	Raleigh.
Blanchard, Lawrence E,.	Hertford.
Bobbitt, Bettie,	Enfield.
Bobbitt, Mont Thomas,	Efland.
Bobbitt, Robert Willis,	Henderson.

Bolick, Mary,	Denver.
Bost, Mabel,	Chapel Hill.
Bourne, Mary P,	Tarboro.
Bowen, Margaret,	Worthville.
Brewer, H. L.,	Wingate.
Bridges, John B.,	Hope Mills.
Bright, Carrie H.,	Raleigh.
Broadfoot, Kate Huske,	Fayetteville.
Brown, Mary Ethel,	Hillsboro.
Brown, Mary K.,	Albemarle.
Bruton, Winnie D.,	Fayetteville.
Bryan, Daniel B.,	Chapel Hill.
Bryan, Mrs. D. B.,	Chapel Hill.
Bryan, Mary Shepard,	Raleigh.
Buchan, Ethel Lansing,	Manley.
Buchanan, Anna Meta,	Laurinburg.
Buck, George C.,	Grimesland.
Bulla, Lillie E.,	Sophia.
Bulwinkle, Muriel C.,	Dallas.
Burgess, Blanche,	High Point.
Burgess, Caleb K.,	Old Trap.
Burgess, Cletus,	High Point.
Burgess, Sam F.,	Creswell.
Burkett, Sallie O.,	Roxobel.
Burnette, Mary,	Jackson.
Burns, Ada May,	Maxton.
Burt, Mabel,	Trenton.
Byrd, T. Ethel,	Morrisville.
Campbell, Arthur C.,	Buie's Creek.
Campbell, Leslie H.,	Buie's Creek.
Canaday, Emily Jane,	Benson.
Carlton, Emma Grace,	Warsaw.
Carter, David Vance,	Liberty.
Carter, Thomas C.,	Liberty.
Chandler, Bessie B.,	Rocky Mount.
Chandler, Emma,	Pensacola, Fla.
Clark, Nell B.,	Pinnacle.
Clayton, Janie H.,	Stem.
Claytor, Robert Hume,	Chapel Hill.
Clinard, Walter B.,	High Point.
Coats, Bessie D.,	Smithfield.
Cobb, Ellen Delisle,	Kerr.
Cobb, Mallie P.,	Pinetops.
Cobb, Margaret E.,	Conetoe.

Cobb, William B.,	Chapel Hill.
Coke, Louise,	Edenton.
Collier, Mayme,	Buie's Creek.
Cooke, Annie Ruth,	Rich Square.
Cooke, Mary M.,	Rich Square.
Cooper, William L., Jr.,	Graham.
Coulter, Victor,	Newton.
Covington, Mary,	Monroe.
Cox, Olivia G.,	Seven Springs.
Cox, Pearle,	Durham.
Craver, Harry O.,	Lexington.
Credle, Blount A.,	Wysocking.
Cridlebaugh, W. L.,	Hamlet.
Crudup, Lillian,	Louisburg.
Crumpler, Martha L.,	Selma.
Dalrumple, Janie,	Sanford.
Dameron, Tempe H.,	Warrenton.
Daniel, Mary Long,	Airlie.
Darden, Martha E.,	Rocky Mount.
Davis, Isaac P.,	Milton.
Davis, Lonnie C.,	Milwaukee.
Davis, Lucy E.,	Asheville.
Day, Jerry,	Blowing Rock.
Dees, William A.,	Pikeville.
Deloatch, Willis S.,	Lasker.
Dimmette, Walter,	Winston-Salem.
Dixon, Alice Louise,	Yadkinville.
Doggett, Eva,	Gilkey.
Donnell, Mrs. G. E.,	Chapel Hill.
Dowd, J. E.,	Wallace.
Dowd, Mrs. J. E.,	Wallace.
Duncan, Joseph L.,	Clayton.
Dunford, Mary N.,	Winston-Salem.
Dunford, Ruth,	Winston-Salem.
Dry, Grace D.,	Albemarle.
Edgerton, Annie May,	Kenly.
Edwards, Dolly,	Spring Hope.
Edwards, John F.,	Barnardsville.
Edwards, Mamie C.,	Henderson.
Eldridge, Bertha E.,	Beasley.
Ellis, Ruby Carolyn,	Clayton.
Evans, Eunice L.,	Murfreesboro.
Evans, Rebecca W.,	Tyner.
Evans, Willietta,	Tyner.

Farrior, John A.,	Raleigh.
Farrior, Kenneth McK.,	Chapel Hill.
Feild, Alexander L.,	Raleigh.
Fenner, Kate Nelson,	Halifax.
Ferguson, Kate,	Neuse.
Ferguson, Mamie Lee,	Murphy.
Finch, Era G.,	Rocky Mount.
Fisher, Clyde O.,	Cary.
Fitzgerald, Stella,	Micro.
Fonville, Claude C.,	Burlington.
Fountain, Alma,	Tarboro.
Franklin, Earle R.,	Merry Oaks.
Franklin, May Belle,	Raleigh.
Franklin, Minnie L.,	Raleigh.
Freeman, Alice,	Goldsboro.
Freeman, J. W.,	Mooresville.
Funderburk, Ray,	Monroe.
Garrard, Lorena,	Rougemont.
Garrett, Wister C.,	Julian.
Gattis, Ethel,	Chapel Hill.
Giles, Ola,	Stem.
Gill, Leila May,	Laurinburg.
Goodwin, Minnie,	Apex.
Goodwin, Pearl,	Apex.
Gorham, Fannie,	Rocky Mount.
Gosney, Minnie S.,	Raleigh.
Graham, Belle,	Raeford.
Graham, Mary,	Charlotte.
Graham, Violet,	Richmond, Va.
Grantham, Emma,	Newton Grove.
Green, Allene Benton,	Durham.
Green, Vergie E.,	Durham.
Griffin, Lola,	Wingate.
Griffin, Mavis,	Rocky Mount.
Grimes, Alice,	Coats.
Grinnan, Isabelle R.,	Hendersonville.
Guess, William C.,	Apex.
Gulledge, Mary W.,	Albemarle.
Hall, Bessie,	Milton.
Hamrick, Euzelia,	Shelby.
Hare, Frank,	Angier.
Hargrave, L. L.,	Battleboro.
Harper, Annie Lee,	Chapel Hill.
Harper, William T.,	Chapel Hill.

Harris, L. Maud,	Garysburg.
Harris, Susie S.,	Rocky Mount.
Harrison, James L.,	Raleigh.
Harrison, Mamie,	Pinetown.
Harrison, Neva I.,	Pinetown.
Harrison, Thomas P., Jr.,	Raleigh.
Hassell, Edith,	Edenton.
Hawley, Florence,	Rockingham.
Hawley, Louise,	Rockingham.
Henderson, Mrs. L. D.,	Mount Holly.
Hendley, Chas, J.,	Monroe.
Henry, Vance,	Lilesville.
Herman, Bertha,	Conover.
Herring, Annie F.,	Chapel Hill.
Herring, Clyde,	Delway.
Herring, Margaret,	Chapel Hill.
Herty, Charles H., Jr.,	Chapel Hill.
Hicks, Oscar V.,	Goldsboro.
Holeman, Hallie,	West Durham.
Holeman, Jean,	West Durham.
Holloman, Mina,	Ahoskie.
Holman, Bertha,	Raleigh.
Holman, Mary B.,	Raleigh.
Hooten, Evelyn,	Snow Hill.
Hooten, Maude,	Belhaven.
Horney, Maggie E.,	Farmer.
Howard, Gladys,	Denver.
Howell, Rosalind,	High Point.
Hudson, Bertha,	Dunn.
Hudson, Martha A.,	Smithfield.
Hume, Thos., Jr.,	University, Miss.
Hummel, Magdalene,	Goldsboro.
Hunter, Norfleet,	Oxford.
Hunter, Susie F.,	Alexander.
Hunter, Wade R.,	Alexander.
Huske, Eleanor,	Fayetteville.
Hutchinson, Charlee C.,	Charlotte.
Irwin, Mary L.,	Charlotte.
Ives, Claude L.,	Grifton.
Ivey, Bessie F.,	Raleigh.
Jarvis, Annie B.,	Washington.
Jarvis, Margaret S.,	Washington.
Johnson, Addie Lois,	Pittsboro.
Johnston, Annie M.,	Chapel Hill.

Johnston, Joseph H.,	Chapel Hill.
Jones, Annabel,	Fletcher.
Jones, H. B.,	Wingate.
Jones, Laura M.,	Franklin.
Jones, Margaret Cooke,	Raleigh.
Jones, Pauline,	Fayetteville.
Jordan, Sallie M.,	Sunbury.
Joyner, Grover H.,	Woodland.
Kelly, Anna Lee,	Raleigh.
Kennedy, Mary H.,	Houstonville.
King, Annie,	Denver.
Kiser, Lucy,	King's Mountain.
Kittrell, Florie E.,	Henderson.
Kittrell, Robert G.,	Tarboro.
Koonce, Lucy,	Trenton.
Kornegay, Mrs. L. T.,	Dover.
Lackey, Pearl,	King's Mountain.
Lambeth, Mary M.,	Guilford College.
Lansdell, Nan,	Semora.
Leach, Corrie,	Raeford.
Leach, Floy J.,	Cary.
Ledbetter, Belle,	Uree.
Ledbetter, John C.,	Uree.
Lee, Mamie E.,	Dunn.
Lee, Nancy D.,	Raleigh.
Leighton, Andrew F.,	Scotland Neck.
Lindsay, Annie O.,	Durham.
Lindsay, Katie,	Durham.
Lindsay, Seaton G.,	Graham.
Lippard, David S.,	Concord.
Llewellyn, Elizabeth P.,	Wilson's Mills.
Long, Jesse Melvin,	Mollie.
Lucas, Elizabeth,	Enfield.
Lunsford, Jennie,	Connelly Springs.
Lynch, Rachel S.,	Chapel Hill.
Lynch, Thomas,	Chapel Hill.
Mallett, Emma J.,	Tarboro.
Mallett, Siddie,	Tarboro.
Markham, Lela Bell,	Durham.
Marrow, Henry B.,	Chapel Hill.
Mason, Allie,	Stanley.
Mason, Edith,	Stanley.
Massey, Hilliard J,	Wakefield.
Massey, Iola,	Durham.

Massey, Jesse E.,	Durham.
Massey, Mamie,	Durham.
Massey, Winona G.,	Clayton.
McCallum, Grace,	Rowland.
McCauley, Mrs. Carrie,	Nashville.
McColman, Sallie,	McColl, S. C.
McCullers, Alice,	McCullers.
McEachern, Gladys,	Wilmington.
McEachin, Karleton,	Maxton.
McGoogan, Mary S.,	Rennert.
McIntosh, Fannie,	Denver.
McIntyre, Cara,	Troy.
McIntyre, Lutie,	Troy.
McKeown, Howard H.,	Stanley.
McKeown, Laura J.,	Stanley.
McLean, Marion,	Fayetteville.
McLeod, Isabelle,	Maxton.
McLeod, Walter Guy,	Maxton.
McNeill, Archie,	Maxton.
McNeill, Sallie W.,	Wade.
McNeill, Robert S.,	Fayetteville.
McWhorter, Jaynie V.,	Morehead City.
Merritt, R. P.,	Chapel Hill.
Miller, Mary Scales,	Dalton.
Mitchell, Mata,	Oxford.
Mizelle, P., Margaret,	Roanoke Rapids.
Moffatt, Jas., S., Jr.,	Due West, S. C.
Moore, Agnes,	Farmville.
Moore, Alice,	Charlotte.
Moore, Fannie B.,	Charlotte.
Moore, Laura E. B.,	Genoa.
Moore, Lucile R.,	Elm City.
Moore, Rosa L.,	Farmville
Moore, William E.,	Biltmore.
Moore, William P.,	Fonta Flora.
Morgan, Horace G.,	Middlesex.
Moose, Lena E.,	Mt. Pleasant.
Morris, Bessie,	Stanley.
Morrow, Byrd,	Rutherfordton.
Morrow, Effie,	Rutherfordton.
Morton, Bertha,	Morehead City.
Morton, M. Embra,	Rocky Mount.
Moser, John W.,	Rural Hall.
Moss, Mattie,	New London.

Moss, Zebulon V.,	Clyde.
Mullen, Flaud Lee,	Iron Station.
Nash, Bettie L.,	Charlotte.
Nash, Mary Armond,	Charlotte.
Nelson, C. E.,	Murfreesboro.
Norwood, Annie,	Raleigh.
Olive, Loula B.,	Apex.
Olive, Lucius B.,	Apex.
Oliver, Lannie,	Marietta.
Ormond, Mabel B.,	Bath.
Orr, James L.,	Mars Hill.
Orr, Oliver H.,	Brevard.
Outlaw, Myra,	Kinston.
Outlaw, Ruth,	Kinston.
Owen, Henrietta,	Wendell.
Owens, Annie J.,	Wendell.
Page, Florence N.,	Morrisville.
Page, Minnie,	Morrisville.
Paris, Addie,	Rocky Mount.
Paris, Nemmie G.,	Rocky Mount.
Parish, Katie,	Maxton.
Parker, Grace R.,	Ahoskie.
Parker, Josie C.,	Potecasi.
Parker, Pearl,	Rougemont.
Parker, Samuel I.,	Monroe.
Pasmore, Julia,	Cary.
Paul, John D.,	Pungo.
Payne, Annie B.,	Washington.
Pearson, Leslie W.,	Dudley.
Penland, Francis A.,	Barnardsville.
Penny, Celestia A.,	Raleigh.
Perry, Fronie,	Wingate.
Perry, Mattie,	Wingate.
Phillips, Ardell,	Rutherfordton.
Pike, Dorothy E.,	Enfield.
Prevost, Robert W.,	Cid.
Price, Jennie,	Matthews.
Pritchard, William N., Jr.,	Chapel Hill.
Proctor, R. Shirley,	Denver.
Ranson, Robert E.,	Troy.
Ratcliffe, Ina,	Ansonville.
Ray, Artee,	Raleigh.
Ray, James Clyde,	Hillsboro.
Redford, Laurie,	Wake Forest.

Reeks, Josephine,	Macon.
Rhodes, Cora Lee,	Lincolnton.
Rhodes, Geo. W.,	Newport.
Rhodes, W. H.,	Chapel Hill.
Rhodes, W. H., Jr.,	Chapel Hill.
Richardson, Jessie E.,	Dover.
Richardson, Frances,	Dover.
Richardson, Nellie,	Selma.
Roberts, Lena V.,	Fries, Va.
Robertson, Kathleen,	Scotland Neck.
Robinson, Elizabeth H.,	Fayetteville.
Rodgers, James O.,	Mooresville.
Rogers, George O.,	Graham.
Rowe, Mary,	Conover.
Royster, Sallie,	Townesville.
Rudisill, Jacob A.,	Cherryville.
Ruffin, Ida,	Battleboro.
Ruffin, Mamie,	Battleboro.
Russell, Mrs. Lucy P.,	Rockingham.
Sawyer, Lida,	Belhaven.
Searcy, Corrie,	Uree.
Setzer, Pearl,	Hickory.
Sharp, Cora I.,	Madison.
Sharp, Lizzie J.,	Madison.
Sheetz, Nannie,	Winston-Salem.
Shields, Madge,	Durham
Shine, Mary Lee,	Rocky Mount.
Shuford, Clinton L.,	Fairview.
Shuford, N. C.,	Fairview.
Smith, Alma,	McCullers.
Smith, Mildred,	Raleigh.
Smith, Sadie L.,	Fayetteville.
Smyre, Clara R.,	Lincolnton.
Spaugh, Ethel,	Mount Airy.
Spencer, Rebert B.,	Hobucken.
Springs, Marguerite,	Charlotte.
Stacy, Lucius E.,	Shelby.
Starr, Hannah J.,	Woodland.
Steppe, N. F.,	Old Fort.
Stewart, Horace,	Unionville.
Stipe, Lula M.,	Winston-Salem.
Stone, Lila May,	Apex.
Strider, William E.,	Waco.
Strowd, M. Wellons,	Efland.

Sugg, Annie R.,	Chapel Hill.
Sugg, Eugene S.,	Chapel Hill.
Sugg, Mattie B.,	Pinetops.
Summerell, Mary,	China Grove.
Sykes, Hettie,	Chapel Hill.
Sykes, Mattie,	Conway.
Tadlock, Mamie Lee,	Windsor.
Tayloe, Bessie,	Ahoskie.
Taylor, Berly M.,	Raleigh.
Taylor, Kader W.,	Wilson.
Taylor, Mary,	Chapel Hill.
Teague, Claude E.,	Cameron.
Teague, John Samuel,	Siler City.
Teague, Pearl,	Siler City.
Teague, Samuel F.,	Goldsboro.
Thomas, Alma,	Jonesboro.
Thomas, Louise V.,	Raleigh.
Thomas, Mary P.,	Cofield.
Thompson, Earl,	Mount Holly.
Thompson, Edna A.,	Fayetteville.
Thompson, Ida A.,	Creswell.
Tinnin, Mary I.,	Hillsboro.
Tolson, Henry A.,	Newport.
Townsend, Jackson,	Marietta.
Trexler, Daisy E.,	Salisbury.
Trivette, D. T.,	Harmony.
Tucker, Harry,	Madison.
Tucker, Lottie,	Ruffin.
Tuttle, Dora,	Lenoir.
Umstead, Urma,	Stem.
Vann, Eddie May,	Como.
Veasey, Maggie,	Lyons.
Veasey, Ora Alice,	Stem.
Waddell, Gussie,	Ansonville.
Waldo, Effie,	Hamilton.
Wall, Cordia,	Sophia.
Wallace, Euna,	High Point.
Watkins, Sue H.,	Manson.
Watson, Helen G.,	Murfreesboro.
Watson, Pearla,	Murfreesboro.
Weaver, James R.,	Chapel Hill.
Webster, Annie G.,	Burlington.
Weeks Mary,	Newton Grove.
Wellons, Velarie,	Selma.

Wells, Swann,	Rocky Mount.
West, Annie I.,	Durham.
Whitaker, Clifton L.,	Enfield.
Whitaker, Clifton L., Jr.,	Enfield.
Whitaker, Margaret,	Enfield.
Whitaker, Susie,	Enfield.
White, Lucy O'B.,	Belvidere.
Whitehead, Margaret R.,	Fayetteville.
Whitley, Marina R.,	Williamston.
Wicker, Valesta,	Moncure.
Wiggins, Alienne,	Middleburg.
Williams, May R.,	Newton.
Williams, Jessie,	Chadbourn.
Winkler, Claudia A.,	Winston-Salem.
Wise, Nola Mae,	Barber.
Withers, May,	Broadway.
Woodard, Mary Olive,	Fairmont.
Woodward, Mary J.,	Cary.
Wrenn, Lula C.,	Garner.
Wright, Gaston A.,	Liberty.
Wright, Hattie,	Wadesboro.
Wynne, Daisey,	Williamston.
Yeargin, J. T.,	Monroe.
Yeargin, Mrs. J. T.,	Monroe.
Yoder, Fred R.,	Hickory.
Young, Charlotte,	Asheville.
Yount, Marvin E.,	Hickory.

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General Summary

Boards of Government and Instruction and Other Officers

Trustees		81
Professors	46	
Instructors	13	
Fellows and Assistants	24	
		83
Other Officers		12

Students

The College:		
Senior Class	75	
Junior Class	83	
Sophomore Class	153	
Freshman Class	234	
Special Students	65	
		610
The Graduate School		23
The School of Law:		
Students in Law	111	
Special Students in Law	20	
		131
The School of Medicine:		
Second Year Students	26	
First Year Students	28	
		54
The School of Pharmacy:		
Second Year Students	4	
First Year Students	28	
		32
Total Number of Students		850
Deduct for Names counted twice		13
Total Number of Regular Students		837
Total Attendance Summer School for Teachers, 1912		463

Summary by States

North Carolina	785	Texas	2
Florida	13	Alabama	1
South Carolina	12	Indiana	1
Tennessee	9	New Jersey	1
Virginia	4	New York	1
District of Columbia	2	Ohio	1
Maryland	2	Washington	1
Persia	2		

The Associations of the Alumni

THE GENERAL ASSOCIATION

Julian S. Carr, President.
Walter Murphy, Secretary.

The Alumni Council

Robert Bingham, *Chairman*, Asheville, N. C.
Walter Murphy, *Secretary*, Salisbury, N. C.
J. Y. Joyner, *Treasurer*, Raleigh, N. C.

1913*

Hayden Clement, A. B., Salisbury, N. C.
W. J. Andrews, A. B., Raleigh, N. C.
J. C. B. Ephringhaus, A. B., Elizabeth City, N. C.
A. S. Barnard, A. B., Asheville, N. C.
Robert Bingham, LL. D., Asheville, N. C.

1914

D. B. Teague, A. B., Raeford, N. C.
J. K. Wilson, A. B., Elizabeth City, N. C.
P. D. Gold, A. B., Raleigh, N C
T. D. Warren, A. B., Newbern, N. C.
J. O. Carr, A. B., Wilmington, N. C.

1915

W. S. Bernard, A. M., Chapel Hill, N. C.
J. Y. Joyner, LL. D., Raleigh, N. C.
W. H. Swift, A. B., Greensboro, N. C.
R. H. Sykes, B. L., Durham, N. C.
George Stephens, A. B., Charlotte, N. C.

The plan of organization adopted by the General Association of the Alumni on June 2, 1911, is as follows:—1. A deliberative body to be known as *The General Assembly of the Alumni of the University of North Carolina*, composed of *delegates* from the Local Associations to meet yearly on such day of Commencement Week as has been previously arranged. 2. A directing board of fifteen to be known as *The Alumni Council*, elected by the General Assembly, the officers of which board shall be the officers of the General Assembly. 3. Local

* Term of office expires at end of Spring Term of the University of the year indicated.

Associations to be known by the names of their respective counties and towns. For a printed form of this constitution in detail application should be made to Mr. Wm. S. Bernard, Chapel Hill, N. C.

Membership in the General Association of the Alumni includes all persons who have matriculated at the University of North Carolina in any department except the Summer School and all who are or have been officers of the institution.

LOCAL ASSOCIATIONS

Alamance County Alumni Association, Burlington, N. C.
W. H. Carroll, *President.*
E. S. W. Dameron, *Secretary.*

Anson County Alumni Association, Wadesboro, N. C.
W. K. Boggon, *President.*
J. E. Hart, M. D., *Secretary.*

Bertie County Alumni Association, Windsor, N. C.
Francis D. Winston, *President.*
Francis Gillam, *Secretary.*

Buncombe County Alumni Association, Asheville, N. C.
———— ————*President.*
L. M. Bourne, *Secretary.*

Cabarrus County Alumni Association, Concord, N. C.
L. T. Hartsel, *President.*
J. W. Cannon, Jr., *Secretary.*

Caldwell County Alumni Association, Lenoir, N. C.
A. A. Kent, *President.*
E. C. Ruffin, *Secretary.*

Catawba County Alumni Association, Hickory, N. C.
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C. G. Rose, *Secretary.*

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R. H. Sykes, *President.*
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Michael Schenck, *President.*
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A. C. Kerley, *Secretary.*

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Sylvester Hassell, *President.*
H. A. Biggs, *Secretary.*

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Louis Goodman, *Secretary.*

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John W. Graham, *President.*
S. P. Lockhart, *Secretary.*

ORANGE COUNTY ALUMNI ASSOCIATION, Chapel Hill, N. C.
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P. H. Winston, *Secretary.*

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J. P. Overman, *President.*
J. K. Wilson, *Secretary.*

PERQUIMANS COUNTY ALUMNI ASSOCIATION.
Affiliates with Pasquotank Co. Alum. Ass'n.

PITT COUNTY ALUMNI ASSOCIATION, Greenville, N. C.
——— ———*President.*
A. J. Moore, *Secretary.*

RANDOLPH COUNTY ALUMNI ASSOCIATION, Ashboro, N. C.
A. C. McAlister, *President.*
H. B. Hiatt, M. D., *Secretary.*

RICHMOND COUNTY ALUMNI ASSOCIATION, Rockingham, N. C.
——— ———*President.*
H. C. Dockery, *Secretary.*

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J. L. McMillan, M. D., *President.*
Hamilton McMillan, *Secretary.*

ROWAN COUNTY ALUMNI ASSOCIATION, Salisbury, N. C.
Walter Murphy, *President.*
A. T. Allen, *Secretary.*

SAMPSON COUNTY ALUMNI ASSOCIATION, Clinton, N. C.
F. B. Johnson, *President.*
L. C. Kerr, *Secretary.*

SURRY COUNTY ALUMNI ASSOCIATION, Mount Airy, N. C.
——— ———*President.*
D. C. Absher, *Secretary.*

UNION COUNTY ALUMNI ASSOCIATION, Monroe, N. C.
W. B. Love, *President.*
J. C. M. Vann, *Secretary.*

WAKE COUNTY ALUMNI ASSOCIATION, Raleigh, N. C.
J. Martin Fleming, M. D., *President.*
J. B. Cheshire, Jr., *Secretary.*

WAYNE COUNTY ALUMNI ASSOCIATION, Goldsboro, N. C.
———— ————*President.*
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F. C. Archer, *Secretary.*

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T. B. Higdon, *Secretary.*

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Warren Kluttz, *President.*
Wade Oldham, *Secretary.*

NEW YORK ALUMNI ASSOCIATION, New York, N. Y.
Augustus Van Wyck, *President.*
Francis A. Gudger, *Secretary.*

NORFOLK ALUMNI ASSOCIATION, Norfolk, Va.
J. H. Winston, *President.*
G. R. Berkeley, M. D., *Secretary.*

SCHEDULE OF EXAMINATIONS

First Day	Second Day	Third Day	Fourth Day	Fifth Day
Economics 3	Chemistry 1	Chemistry 6	Botany 1	Economics 1
Educ'n 10	Economics 4	English 1	Chemistry 5	English 1
German 2A	Educat'n 5, 6	English 14	Economics 5	English 10
History 5	English 9	French A	English 1	German 1
History 9	French 2	French 4	English 2	Greek 15
Math. 11	Geology 3	Greek 6	English 5	History 1
Philosophy 3	German 2B	History 11	French 1	History 3
Physics 5	Greek A	Italian 1	French 3	Latin 3
	History 8	Latin 2	Geology 4	Latin 10
	Latin 9	Library Adm.	German A	Math. 2
	Math. 1	Philosophy 6	Greek 5	Math. 3
	Math. 4	Physics 1	Greek 14	Math. 13
	Math. 7A	Physics 15	History 10	
		Pub. Spkg. 3	Latin 4	
		Spanish 1	Latin,7, 8	
			Math. 7	
			Math. 15	
			Philosophy 1	
			Physics A	

Sixth Day	Seventh Day	Eighth Day	Ninth Day	Tenth Day
Botany 2	Chem. 16	Chemistry 7A	Education 1, 2	Chemistry 2
Chemistry 7	Education 7	Education 3, 4	English 2	Chemistry 7B
English 3	English 1	English 2	French A	Education 9
English 12	English 4	Geology 1	German A	English 6
Geology 8	English 16	German A	German 3	French A
German 4	Geology 7	German 1	Greek 1	French 1
German 6	Greek 1	German 7	History 7	Geology 6
Greek 3	History 4	Greek 4	Latin 1	German A
Math. 16	Latin 1	Latin 1	Math. 1	Greek 2
Physics 4	Latin 2	Math. 1	Math. 2	History 1
Pub. Spkg. 2	Math. 3B	Physics 6	Philosophy 2	History 15
	Math. 10		Physics 2	Latin 2
	Physics 1			Math. 1
	Physics 11			Math. 3A
	Zoology 1			Math. 8
				Math. 17
				Philosophy 4

SCHEDULE OF RECITATIONS 1913-1914

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
	A	CHAPEL	B	C	D	E	
ON.	Chem. 7A Educat'n 3, 4 Eng. 2, II Geology 1 German A, I German 1, II German 7 Greek 7 Latin, 1, II, V Math. 1, I, III, V Math. 5 Physics 6 Pub.Spk'g. 1, VIII		Chem. 2 Chem. 7B Education 9 Eng. 1, IV Eng. 6 French A,II French 1, I French 1, IV Germ. A, IV Greek 2 History 1, I Latin 2, IV Math. 1, VIII, X Math. 3A Math. 8 Math. 17 Philos. 4 Pub.Spk'g 1, I	Chem. 16 Educat'n 7 Eng. 1, III Eng. 4 Geology 7 Greek 1, II History 1, II Latin 1, I, IV Latin 2, II Math. 10 Physics 1, I Zoology 1	Chem. 1 Econom. 4 Educat'n 5,6 Eng. 9 French 1, III French 2 Geology 3 German 2B Greek A History 8 Latin 1, III Math. 1,VII, IX Math. 4 Math. 7A Pub.Spk'g.1, VII	Educat'n 1,2 Eng. 2, IV French A,IV Germ. A, II Germ. 3 Greek 1, I Hist'y 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Philos. 2	Pub. Spk'g.1, V Laboratory : Chem. 1, I Chem. 3A Chem. 4 Chem. 8 Chem. 9 Physics 1, I Physics 4 Zoology 2
	F	CHAPEL	G	H	I	K	
ES.	Botany 2 Chem. 7 Eng. 2, III Eng. 3 Eng. 12 Geology 8 German 4 German 6 Greek A Greek 3 Latin 1, III Math. 1,VII, IX Math. 16 Physics 4 Phb.Spk'g.2		Botany 1 Chem. 5 Econom. 5 Eng. 1, II, VI Eng. 2, I, V English 5 French 1, II Geology 4 Germ. A, III German 1, III Greek 5 Greek 14 History 1,V History 10 Latin 4 Latin 7, 8 Math. 7 Philos. 1 Physics A Physics 10	Chem. 6 Eng. 1, V Eng. 14 French A,III French 4 Greek 6 Italian 1 Latin 2, I, III Libr. Adm. Philos. 6 Physics 1, II Physics 15 Pub. Spk'g. 3 Spanish 1	Econom. 1 Eng.1,I,VII Eng. 10 French A, I, V Germ. 1, I Greek 15 Hist'ry 1, III History 3 Latin 10 Math. 2, I Math. 3 Math. 13 Pub.Spk'g.1, VI Spanish 2	Econom. 3 German 2A Greek 1. I History 5 History 9 Latin 1, VI, VII Math. 1, II, IV, VI Math. 11 Philos. 3 Physics 5	Pub.Spk'g. 1, IV Laboratory : Botany 1, I Chem. 1, II Chem. 3, I Chem. 8 Drawing,2,3 Geology 2 Physics 1, II
	A	CHAPEL	B	C	D	E	
ED.	Educat'n 3, 4 Eng. 2, II Geology 1 GermanA, I German 1, II German 7 Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6		Chem 2 Chem. 7B Education 9 Eng. 1, IV Eng. 6 French A, II French 1, I French 1, IV Geology 6 German A,IV Greek 2 History 1, I History 15 Latin 2, IV Math.1,VIII, X Math.3A Math. 8 Philos. 4	Chem. 16 Education 7 Eng. 1, III Eng. 4 Eng. 16 Geology 7 Greek 1, II History 1, II History 4 Latin 1, I, IV Latin 2, II Math. 3B Math. 10 Physics 1, I Zoology 1	Chem. 1 Econom. 4 Educat'n 5, 6 French 1, III French 2 Geology 3 German 2B Greek A Greek 4 History 8 Latin 1, III Latin 9 Math. 1,VII, IX Math. 4 Math. 7A Pub.Spkg.4	Educat'n 1,2 Eng. 2,IV French A,IV Germ. A, II German 3 Greek 1, I Hist'ry 1, IV History 7 Latin 1,VI, VII Math. 1, II, IV, VI Math. 2, II Physics 2	Laboratory : Botany 1,II Chem.1,III Chem.3A, Chem. 4 Chem. 8 Drawing 2, 3 Physics 10

SCHEDULE OF RECITATIONS 1913-1914—*Continued*

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
	F	CHAPEL	G	H	I	K	
THURS.	Chem. 7 Eng. 2,III Eng. 3 Eng. 12 Geology 8 German 4 German 6 Latin 1, II, V Math. 1, I, III, V Math. 16 Pub.Spkg.2		Botany 1 Chem. 5 Econom. 5 Eng.1,II,VI Eng.2,I,V English 5 French 1, II French 3 Geology 4 Germ. A,III German 1, III Greek 5 Greek 14 History 1, V History 10 Latin 4 Latin 7, 8 Math. 7 Philos. 1 Physics A Physics 10	Chem. 6 Eng. 1, V Eng. 14 French A,III French 4 Greek 6 Italian 1 Latin 2, I, III Libr. Admn. Philos. 6 Physics 1, II Physics 15 Pub.Spkg.3 Spanish 1	Econom. 1 Eng.1,I,VII Eng. 10 FrenchA,I,V Germ. 1, I Greek 15 Hist'ry 1, III History 3 Latin 10 Math. 2, I Math. 3 Math. 13 Spanish 2	Econom. 3 Germ. 2A Greek 1, II History 5 History 9 Latin 1,I,IV Math. 1,VIII X Math. 10 Math. 11 Philos. 3 Physics 5 Pub.Spkg.1, III	Laboratory Botany 2 Chem. 1, IV Chem. 3, I Chem. 8 Chem. 9 Drawing 1 Geology 2 Physics 4 Physics 11 Zoology 1, I Zoology 2
	A	CHAPEL	B	C	D	E	
FRI.	Chem. 7A Educat'n 3,4 Eng. 2, II Geology 1 Germ.A,I Germ. 1, II German 7 Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6		Chem. 2 Chem. 3A Educat'n 9 Eng. 1, IV Eng. 6 French A II French 1, I French 1, IV Germ. A, IV Greek 2 History 1, I History 15 Latin 2, IV Math.1,VIII, X Math. 3A Math. 8 Math. 17 Philos. 4 Physics 11	Chem. 16 Chem. 3A Education 7 Eng. 1, III Eng. 4 Eng. 16 Geology 7 Greek 1, II Hist'ry 1, II History 4 Latin 1,I,IV Latin 2, II Math. 3B Math. 10 Physics 1, I Physics 11	Chem. 1 Econom. 4 Eng. 9 French 1, III French 2 Geology 3 Germ. 2B Greek A Greek 4 History 8 Latin 1, III Latin 9 Math. 1,VII, IX Math. 4 Math. 7A Pub.Spkg. 4	Educa'n 1,2 Eng. 2, IV French A,IV German A, II German 3 Greek 1, I Hist'y 1, IV History 7 Latin 1,VI, VII Math. 1, II, IV, VI Math. 2, II Philos. 2 Physics 2	Pub.Spkg. 1, II Laboratory : Botany 2 Chem. 1, V Chem. 4 Chem. 8 Geology 4 Zoology 1, II Zoology 2
	F		G	H	I	K	
SAT.	Botany 3 Chem. 5 Eng. 2, III Eng. 3 Eng. 12 Geology 6 German 4 German 6 Math. 16 Physics 14 Zoology 3		Botany 3 Chem. 5 Drawing 1 Eng. 1, II, VI Eng. 2, I, V Eng. 5 French,1, II French 3 Germ A, III Germ. 1, III History 1, V Philos. 1 Physics A Physics 10 Physics 14 Zoology 3	Botany 3 Eng. 1, V Eng. 14 French A,III French 4 Italian 1 Latin 2,1, III Philos. 6 Physics 1, II Physics 14 Spanish 1 Zoology 3	Botany 3 Econom. 1 Eng. 1,I,VII English 10 French A, I, V Germ. 1, I Hist'y 1, III History 3 Latin 3 Math. 2, I Math. 3 Physics 14 Spanish 2 Zoology 3	Botany 3 Germ. 2A Physics 14 Zoology 3	

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